



## PHD

### **Institutional, Economic and Regional determinants of Foreign Direct Investments in the Balkan, Central European and ex-Soviet transition economies**

Bellos, Sotirios

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# **Institutional, Economic and Regional determinants of Foreign Direct Investments in the Balkan, Central European and ex-Soviet transition economies**

Volume 1 of 3

**Sotirios K. Bellos**

A thesis submitted for the degree of

**Doctor of Philosophy**

University of Bath

Department of Economics and International Development

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## ***ABSTRACT***

The study focused on the transition economies of South Eastern Europe, Central Europe and those of the ex-Soviet countries, during the period 1990-2005.

The main research aims included the identification of the distinct FDI features, the research for FDI determinants and the relation between FDI and the host countries' institutions with a particular emphasis on corruption and poor governance phenomena. Additional to that the study shed light on the impact of transition process reforms on FDI. The research employed a variety of different data sources and empirical methods, in order to achieve its goals.

The empirical analysis indicated that foreign investments in the area of interest were not particularly affected by the presence of corruption. Actually, foreign investors were rather encouraged by both high corruption and the low governance levels. Regarding FDI features, the formulated view is of foreign investments as business entities with secured financial support, export orientation, not significant contribution to labour skills and production increase and with a rather indifferent approach towards taxation.

With regards to FDI determinants, the empirical results highlighted the host country's market potential, the privatization opportunities both at small and large scale, the existence of strategic natural resources, the quick implementation of the transition reforms in terms of competition policies, trade and prices liberalization and banking reforms, while also the existence of an adequate and exploitation promising infrastructure.



## *List of Abbreviations*

BEEPS:	Business Enterprise Environment Performance Survey
CE:	Central Europe
CIS:	Commonwealth of Independent States
COMECON:	Council for Mutual Economic Assistance
CPI:	Corruption Perception Index
EU:	European Union
FDI:	Foreign Direct Investments
FYROM:	Federal Yugoslavian Republic of Macedonia
GDP:	Gross Domestic Product
GNP:	Gross National Product
GLS:	Generalized Least Squares (method)
HDI:	Human Development Index
ICRG:	International Country Risk Guide
IEA:	International Energy Association
IMF:	International Monetary fund
LSDV:	Least Squares Dummy Variables (method)
MNE:	Multi- National Enterprise
OECD:	Organization for Economic Co-operation and Development
OLI:	Ownership, Location and Internalization Advantages
OLS:	Ordinary Least Squares (method)
PRS:	Professional Risk Services
R&D:	Research and Development
SEE:	South-Eastern Europe

SME:	Small and Medium sized Enterprises
TI:	Transparency International
UN:	United Nations
UNCTAD:	United Nations Conference on Trade and Development
WB:	World Bank
WBES:	World Business Environment Survey
WC:	Washington Consensus
WDI:	World Development Indicators

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## ***CHAPTER 1 Introduction***

The research presented in this thesis focuses on the institutional, economic and regional determinants of foreign direct investment (FDI) in the Balkan, Central European and ex-Soviet transition economies.

### ***1.1 The Aims of the Research***

The thesis is concerned with foreign investments taking place during the transition process, a process which was the imminent consequence of the end of the central planning economic paradigm.

FDIs in turn are closely linked with the ongoing globalization process - they are actually considered to be one of its most critical pillars - which happened to be in an accelerating phase when the transition process was initiating. It could be claimed, in terms of historical events sequencing, that it was the end of the central planning economic paradigm that actually released globalization dynamism.

In this view, the thesis and its findings could be seen as a study of some of the interactions between globalization and the collapse of an economic paradigm that dominated a large part of the world nearly throughout 20<sup>th</sup> century, marking almost every major historical event either in a direct or in an indirect way.

The first aim of the research was to focus on the distinct features of the foreign firms investing in the transition countries. Host countries in transition differed from other host countries in terms of prevailing social and economic conditions as they were in a phase of abandoning almost the entirety of principles ruling their economic life and presence. Incoming foreign investments features regarding aims, specialized activities, preferences while also modes of operating could potentially provide useful FDI related insights. Firstly it could outline certain incentives which in turn could give an idea to what these firms were actually looking for in the particular geographic areas. Secondly it could contribute to the formation of a view regarding the ways by which these business entities were adjusting and interacting with an absolutely changing and thus, rather risky environment. This could trace certain aspects of the MNEs' "character", determination, power and principles. Additionally to that, the study of distinctive FDI features could provide indications regarding domestic firm's features, which in turn could shed light on the transition reform measures impacts on the countries of study.

The second aim of the research was actually arising from the first one and more specifically from that part referring to the interaction between foreign business entities and host country wider economic environment. However, in this case the interest was focused on the interaction between incoming FDIs and host country institutional nexus, the latter referring to a wide range of notions including bureaucratic quality and efficiency, rule of law, democratic accountability and corruption. The attitude of MNEs towards host countries' institutions in particularly difficult conditions as those of transition was at the core of the particular research question. The research on this issue could show whether the institutional nexus in these countries was eager to offer to the foreign investors the opportunity to operate with minimum obstacles, or whether they were trying to exploit them. But the most important part of the analysis would be the study of the ways in which foreign investors reacted to host countries' institutional abnormalities and malfunctions either by accepting them as a necessary evil, by trying to correct them, or even be exploiting them in order to serve their interests. These could contribute further to the formation of a precise view of the MNEs nature and ethics in the studied geographical areas.

The third - and last – research aim was focused on the location aspects of foreign investments in the transition countries but also on the impact that the transition reform measures themselves had on the incoming foreign investments. More specifically, the research in this case would be primarily directed to the study of the location determinants of foreign investments. The latter, according to the related literature, refers to a wide range of factors like natural endowments, labor cost, market potential or access to trade routes and several others which have in common the fact that their presence or exploitation is able to improve MNEs performance and international position. Additionally the research would examine whether the imposed measures for transition from the planned economies status to the open market economies had an impact on inward FDIs. By this way the research could contribute further to the creation of a more complete view of foreign investments by providing a series of MNEs motives operating in the transition countries of the study and also assessing the role of transition changes on MNEs presence. This in turn could provide useful insights on the impact and the objectives of the transition reforms measures.

### ***1.2 The Methods of Analysis***

The achievement of the research aims which were briefly described previously was based almost exclusively on empirical analysis, which in turn was based on the existence of relevant data, the analysis of which would provide the required answers. In one case a series of case studies was used in order to provide real life verification to the extracted empirical results.

The empirical analysis required the development of a series of models that would be econometrically tested. Due to the nature of the existing data, the analysis adopted a variety of econometric methods. The study of the FDI features required the use of cross section analysis, while the study of the interaction between FDIs and host country's institutions employed gravity analysis. Finally the research for FDI location determinants and the impact of transition measures on FDIs used the panel data analysis.

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Regarding the data used for the scopes of the research, a variety of different databases were selected. An important source of data used mainly for the study of FDI features was the BEEPS database, created jointly by European Bank for Reconstruction and Development and the World Bank. The part of the analysis focused on the interaction between FDIs and host country institution was based on data provided by the Vienna Institute. Finally, the study of the FDI location determinants and the transition measures impact on FDI was based on data provided by the World Development Indicators (World Bank) and by the European Bank for Reconstruction and Development.

In the part of the research that refers to the relation between FDI and host country's institutions and governance, a series of case studies were used in order to provide additional verification (triangulation) to the empirical results.

### ***1.3 Structure of the Thesis***

The thesis is structured as follows. Chapter 2 reviews the theoretical literature on foreign investments and multinational enterprises. Chapter 3 moves on to provide detailed descriptions of the countries under study and the prevailing conditions, regarding transition process. Chapter 4 is the first empirical chapter and focuses on FDI distinctive features. Chapter 5 contains the analysis of the interaction between FDI and basic host countries' governance parameters. Chapter 6 carries out a specialized analysis on FDI and Corruption in certain transition countries. Chapter 7 focuses on the location determinants of FDI and the impact of transition measures on inward foreign investments. The thesis concludes with Chapter 8, which contains a review of the findings together with an outline of future research perspectives.

Regarding the correspondence between the empirical chapters and the research aims, Chapter 4 embodies the results and findings regarding FDI distinctive features, Chapters 5 and 6 contain the analysis of the interaction between FDI and the institutional nexus in the transition countries and Chapter 7 includes the location FDI determinants analysis together with the analysis of the transition measures impact on incoming FDIs.

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### ***1.4 Publications***

The research carried out in the context of this thesis has concluded to certain findings, which have been published in either seminars/symposiums, or journals. More specifically the thesis' author's empirical findings of Chapter 6 regarding FDI and Corruption in the transition countries have been part of a paper that was accepted for publication in the journal "Bulletin of Economic Research", which is listed in the SSCI. The results of Chapter 4 regarding FDI features according to the BEEPS surveys have formed a paper that was accepted for publication in the proceedings of Athens Institute of Education and Research (ATINER) after its presentation in a conference that took place in Athens in Autumn 2009. The analysis contained in Chapter 7 regarding FDI determinants has formed another paper that has been accepted for presentation and has been presented in the 5<sup>th</sup> Annual International Symposium on Economic Theory, Policy and Applications, (26-29 July 2010, Athens, Greece). Evidence for these is provided in the Thesis Appendix (p.230).

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## ***CHAPTER 2 Theoretical Approaches to FDI***

### ***2.1 Introduction***

The chapter has a twofold scope. Primarily it aims to present the theoretical basis behind multinational enterprises (MNEs) and their foreign direct investment (FDI) and secondary to highlight in a primary stage the factors or the families of factors which determine foreign investments according to the theoretical approaches presented. The review of these theoretical approaches will provide a detailed insight into the nature of FDI and the ways in which they operate. In addition, it will provide the general categories of foreign investments determinants, which will enhance the effectiveness of the empirical analysis, presented in the following chapters.

The Chapter's structure is as follows. Section 2.2 contains the definitions and the classification of MNEs. The analysis then proceeds to a presentation of the prevailing FDI theories. More specifically, Section 2.3 describes Hirsch Trade and Investment theory. Section 2.4 considers Vernon's product cycle theory and Section 2.5 refers to Magee's appropriability theory. Internalization theory is described in section 2.6 followed by Dunning's eclectic paradigm in Section 2.7. Section 2.8 describes the



Investment Development Path theory, examining FDI in relation to host economies development stage. Finally, Section 2.9 focuses on the special relations between FDI, MNE and the nation states (both home and host). The Chapter concludes with Section 2.10

## ***2.2 Definitions and Classifications of Foreign Investments and Multinational Firms***

According to the United Nations Conference on Trade and Development (UNCTAD, 2007) a foreign direct investment (FDI) is an:

*“..investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor FDI enterprise or affiliate enterprise or foreign affiliate”*

The definition refers to entities (investor or parent enterprise) based in one economy and their business interests expressed through other entities located in different economies. These groups of entities linked with tight business relations, called multinational enterprises (MNEs) or transnational corporations (TNCs) are defined by UNCTAD (2007) as

*“..incorporated or unincorporated enterprises comprising parent enterprises and their foreign affiliates. A parent enterprise is defined as an enterprise that controls assets of other entities in countries other than its home country, usually by owning a certain equity capital stake. A foreign affiliate is an incorporated or unincorporated enterprise in which an investor, who is a resident in another company, owns a stake that permits a lasting interest in the management of that enterprise.*

Dunning (1971) used a shorter definition for MNEs and defined them as “any firm producing in more than one country”. Others, such as Vernon (1971) and Brooke and Remmers (1970), in order to distinguish these from the rest, emphasized the issue of MNEs distinctive size and organizational structures. More specifically, they stated that multinational corporations are large firms that deal with their foreign operations through

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an integrated organizational division, which is spread internationally and is based on products and markets.

Regarding the different types of foreign direct investments, these can be classified according to some of their basic and distinctive characteristics, like their direction, targets and motives.

### ***Direction***

Direction type investments refer to inward and outward FDI regarding the point of reference. Inward FDIs are those cases in which foreign capital is invested in the local market, whereas outward ones are investment cases in which local capital is invested in foreign markets.

### ***Target***

***Greenfield*** investments are the direct investments which aim to create new facilities or expand existing ones, e.g. the building of a new production plant, the initiation of a new production line in an operating factory, etc., or they are concerned with the establishment of a completely new firm in the host country.

***Mergers and Acquisitions*** refer to the transfer of rights on existing assets to foreign firms and entities. Despite the fact that they are less preferred than Greenfield investments, mergers and acquisitions account for a large majority of FDI worldwide. Privatizations also can be included in this category

***Horizontal investments*** are those that take place in the same sector or industry as the one in which the investing firm operates in its home country.

***Vertical investments*** can be classified into two categories: forward vertical FDI and backward vertical FDI. Forward investments are those that provide products to another industry abroad, in order to be sold in foreign markets, whereas backward investments are those that use inputs from abroad to be employed in their production processes.

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**Motives**

Dunning (1993) classified FDI according to their motives using the following categories:

**Resource – Seeking** FDI aims at getting access to primary production factors, such as necessary natural resources (e.g. coal, steel, oil, etc.) or labor. The tangible resources are directed either towards international trade or are used in the production plants of the parent firms in other countries.

**Market – Seeking** FDI aims to get access to important and/or large markets, in order to improve MNEs' international position.

**Efficiency – Seeking** FDI deploys capital in specific sectors and markets, in order to exploit economies of scale and the special advantages that may exist, such as: highly skilled human capital (e.g. Silicon Valley), research and development spillovers, which are usually found in developed countries or in country groupings such as the EU.

**Strategic –Asset Seeking** FDI is being actualized as a result of the existence of strategic alliances with other firms or actions that could impose barriers to the competitors and thus protect their market position.

**2.3 International Trade and Investment Theory of the Firm**

Seev Hirsch (1976) developed a theoretical model, which described the selection process between foreign investment and trade, based on cost differences related to the development, promotion and overall coordination of a product, which could be either exported or produced in a market abroad. The model assumes two countries A and B; with B being the low-cost country. A firm in country A produces a product that exports to B, in which the growing demand exceeds the current production abilities. The production increase by new production facilities is accompanied by the location dilemma: Home Country (A) or Host Country (B)? The dilemma is actually the question behind FDI: trade or investment abroad? The answer to the dilemma is dictated according to Hirsch by the following cost parameters.

*Production Costs*

$P_a$  and  $P_b$  are the production costs for each of the two countries.

*Technology Costs*

$K$  refers to cost embodying all those intangible assets related to technology and know-how. It is subject to obsolescence, and for this reason it requires continuous research and investments.

*Marketing Costs*

$M$  is the difference between export and domestic marketing costs  $M = M_x - M_d$  and it is always positive, since the marketing costs for exports involve more cost related activities (communications abroad, financial transactions, increased insurance costs, etc.)

*Coordinating Costs*

Coordinating costs refer to coordination activities of production, either abroad ( $C_x$ ) or locally ( $C_d$ ).  $C$ , like  $M$ , is defined as  $C_x - C_d$ , and it includes purchasing, transportation, production organizing, etc. These costs in the foreign investment case are higher and therefore  $C$  is positive in most cases.

The decision for international production or not, is the result of cost terms comparison between alternative choices.

*Export Decision (both conditions have to be valid)*

$$P_a + M < P_b + K$$

$$P_a + M < P_b + C$$

The first relation shows that when the export solution is preferable, this is because production and marketing cost are lower in home country than in target country added to the necessary capital for know-how (R&D) and to coordination costs.

*Investment Decision*

$$P_b + C < P_a + K$$

$$P_b + C < P_a + M$$

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International production is preferred when production cost in target country together with coordination costs are lower than production cost in home country added to the know-how and marketing cost.

The model demonstrates cost minimization's critical role and denotes that a foreign investment takes place when host country has the advantages of low production costs and when the firm's technological advantages (K) related costs exceed the additional coordination costs, due to cross-border investment. In addition, export marketing costs must exceed coordination costs. The Hirsch model can be extended and include those cases in which firms produce more than one product, by applying the above described set of rules to every product.

Rugman (1980) criticized Hirsch's model of international trade and production stating that he included in the model only the alternatives of exports and foreign investment excluding licensing and the related with it issues. Additionally, Rugman notifies that the model also ignores the dynamic nature of technology, that is, the changing conditions under which MNEs can appropriate its knowledge advantages (K). Apart from that, the model can be hardly applied to strategy-seeking types of foreign investments, in which the investment decision relates more to issues able to keep out competitors mainly by posing barriers or using pricing tools.

### ***Application to the transition Economies***

The application of the model in the case of the transition economies of the study states that foreign investments in the transition economies would take place in those cases in which the production cost in the transition countries would be significantly lower than production in home countries and the increased co-ordination costs arising probably from the obsolete infrastructure and possibly from the transition process difficulties would be far less than the cost of the MNEs technological advance related costs. Regarding the case of transition countries the model explicitly introduces the cost parameters as crucial determinants of foreign investments. Production costs are directly linked to labor cost, primary resources costs, and transportation costs. Extending these cost parameters, issues like unemployment can also have an impact on cost minimization as they are indicative of low cost production opportunities, especially in countries that have a good stock of human capital, as it is the case with several

transition countries which have human capital both in quality and available quantity (Spagat, 2006). Coordination costs are related to the existence of a certain infrastructure level that could enable co-ordination activities (e.g. telecommunications, road/rail network, bureaucracy, banking access and institutions, etc.). Marketing costs are closely linked to the existence of a large and mature market with an established tertiary sector capable to transfer the marketing information. Despite the general sense that in the transition countries, tertiary sector was crowded out due to large scale industrialization orientation, there are indications that this was not valid for many of the transition economies (Caselli and Pastrello, 1992)

## ***2.4 Product Life Cycle Theory***

Vernon's Product Life Cycle Theory (1966) provides an explanation regarding the conditions under which a firm proceeds towards FDI. According to Vernon's approach, there are different stages in the development and introduction of a product to the market and the choice of either trade or FDI depends on these stages, which are described below:

### **The initial stage**

A new product is not standardized in its initial stages of development and the market, to which the product will be directed, in many cases, is unknown. Therefore the need for the taming of the dynamic nature of the market is highly desirable. At this stage, price elasticity is low and there are high differentiation abilities. As a result, the producer enjoys some monopolistic advantages. Under these conditions the firm establishes its production plants close to the target market, in order to be able to receive immediately the its reactions and take prompt action. According to Vernon (1966), ideal locations at this stage are markets in countries with high per capita income, where consumers can afford new products embodying increased development costs. Additionally, the location of production has to be in close proximity to: capital, skilled labor, resources, etc. Therefore, in the first stage production is directed mainly towards local market. As the product is new, the demand from abroad is limited and able to be satisfied through exports.

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**Expansion stage**

In the second stage new products demand increases. At the same time production process starts to get standardized to a certain extent and enlarged production size allows for the exploitation of scale economies. As the product starts to be established in the market, it becomes known and there is cross-border demand, which is also satisfied through exports, as in stage one.

**Maturity stage**

The third stage is characterized by demand stabilization in the local market. Production gets further standardized and the firm focuses on production cost minimization. In the mean time similar products appear in the market, which limit the monopolistic power of the firm and result to market enlargement. Under these conditions buyers become more price-sensitive than they were during first stage, where the dominant role was given to the product's innovative features. At this stage the option of an investment abroad appears to be beneficial and is related to the following conditions:

- There is a large market abroad able to provide economies of scale, in which input costs are lower than those in the home country;
- The input price differences are able to balance transportation costs;
- In the target market there is competition among firms from the home country;
- The host country government encourages import substitution to improve its balance of payments and to reduce unemployment levels.

If these conditions exist, a foreign investment decision is a very likely one. However, such an action is not a terminal one. Home country rival firms, which are present in the market abroad through trade means, will face this as a threat to their activities and market position. On this issue, Vernon pointed out that “... *threat in general is a more reliable stimulus to action than opportunity is likely to be*”. Price differences in firm's overall production may be so significant, that the rest of the firms in the sector will fear losing significant market shares. Such developments are likely to force them to follow the initial investor and enter the market abroad, via FDI, in order both to exploit the same advantages but primarily to maintain their market share.

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**Standardization stage**

In the last stage of the product life cycle, every oligopolistic advantage has vanished and both the product and the technology involved are absolutely standardized. At this stage same sector firms promote their products, either by means of advertisement, or by means of finding production cost diminishing locations. When standardization reaches its maximum level, the main cost parameter is labor cost. In this case the fact that the product is highly standardized can lead to the adoption of less developed countries as alternative production locations, since:

- The technology is already embodied in the production equipment and can be easily transferred;
- The production is at a large extent vertical requiring minimum local inputs;
- The need for highly skilled labor force is minimized;
- A low cost labor force is present in candidate host countries

The theory was later updated by Vernon himself (1974) by adding to it the link between production location and market structure changes (depending mainly on oligopolistic). He described three different stages in the evolution of the market structure, depending on entry barriers, which are listed below.

***Innovation based Oligopoly***

The innovative and pioneering character of a newly introduced product that embodies unique features is itself an entry barrier. The production location, in these cases, is usually near to the research location. Typical examples of such countries are those that have: an innovation encouraging institutional framework, a sophisticated education system, highly skilled human capital and a nearby market seeking innovative products.

***Mature Oligopoly***

In this case the entry barriers are created not by the innovation, but by the existence of economies of scale or other parameters, such as marketing and distribution costs. Competition is focused mainly on production cost, which directs investments towards countries with large markets and relatively high per capita income.



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*Senescent Oligopoly*

In the last case, the situation is characterized by oligopolistic conditions based on the creation of cartels or on product differentiation. The equilibrium conditions, regarding the market shares and the oligopolistic perspectives, are unstable. Such market examples are consumer products with high substitutability. In these cases firms seek cost minimization options in order to create entry barriers and therefore the production locations that are selected are usually found in less developed countries.

In his latest work Vernon (1977) introduced the issue of entropy in his discussion about MNEs. MNEs are in one of the oligopolistic categories mentioned above. The firm specific advantages of an MNE are in constant danger of being devaluated by entropy and the firm needs to face this entropy related problem in order to generate new advantages. Entropy can only be eliminated by induction of “high quality energy” in the scheme, which translates into the need for FDI to generate new firm specific advantages by inducing new resources in this direction in a dynamic manner. This is something that can be related to the notion of internalization. Giddy (1978) has also recognized this in a paper which relates the product cycle model to the theory of internalization, which is going to be described in the following parts of the chapter.

Vernon (1977) criticized his own theory in the light of rapid developments in the international business environment. He acknowledged that the prevailing conditions when he proposed his theory were totally different from those that prevailed three decades later. The first point of the theory that needed re-consideration had to do with the spread of innovating firms around the globe. In the initial theory, it was supposed that innovating firms (mainly US firms at that time) started spreading to those locations that were more familiar and similar to the firms’ home markets and then to other less familiar locations. However, as time passed it became obvious that this was not always the rule; firms, even in high technology sectors, started to choose production locations all around the globe.

The second point, regarding Vernon’s self criticism, relates to changes in the business environment. Vernon pointed out that when the theory was proposed, US economy was the main storehouse of innovation and its income level was much higher than that of European or Japanese countries. As time passed, income differences between USA and

other regions were remarkably reduced causing an increasing demand for innovating products in these regions. As a result, increasing exports from the US took place and in many cases these were followed by US FDIs. The reduction in income differences also led to the increase in production factor costs in regions like Europe and Japan, which approached those of the US. Therefore, one of the critical assumptions of the product cycle was not valid in this case, as the entrepreneurs of large firms did not face different conditions in several of the markets abroad.

Despite criticism product life cycle theory still maintains a large proportion of its explanatory power. Dunning (1993) mentioned that the product cycle model explains several of the issues related to MNE activity, adding that this was the first dynamic description of the determinants of foreign trade and foreign investments.

### ***Application to the Transition Economies***

In the case of transition countries, the product cycle theory provides a good guide regarding the kind of foreign investments that enter their markets and their motivations, which in turn can reveal their determinants. According to the model, foreign investments in the countries of interest should appear when certain products reach at least stage III and certainly IV, in which production is standardized, and any kind of monopolistic nature has rather vanished while the market presents severe competitive substitutes, which force the parent firms to upgrade in their decision making the cost minimization issues. These issues are linked with issues of cheap primary resources but also with labor availability issues, which in turn are also influenced by unemployment levels which in transition countries are expected to be at rather high levels (Brusentsev and Vroman, 2008). The fact that the products are standardized implies a limited need for highly skilled labor force. Transportation costs are also another part of the overall cost and these are also linked with the existence of a safe and reliable transportation and communication infrastructure. Service sector facilities like financing and insurance are also crucial and important cost influencing parameters, which can be present in several transition economies (Caselli and Pastrello, 1992). Finally, the ability to provide the reduced production cost goods in the international markets is also crucial, which in turn demonstrates the importance of exporting facilities and relevant export enhancing policies adopted by host countries.

### ***2.5 Appropriability Theory of the Multinational Corporation***

A complementary but also contrasting theory to Vernon's product life cycle was appropriability theory proposed by Magee (1977). The appropriability model states that the most important consideration facing innovating multinationals is the possible loss of their technological advantages to rival firms and emulators. As these advantages are based on innovative ideas which have the features of public goods, these can be easily utilized in a costless manner by others (which copy or steal them), but at the same time reducing by these practices the profitability for the innovators that devoted significant resources for their development. The more difficult it is the protection of the profitability of an innovation, the greater is the appropriability problem. Appropriability theory suggests that MNEs are specialists in producing "information" for new products for product development, for production processes, for market creation and finally for appropriability itself.

When applied to MNEs, appropriability theory suggests that it is more efficient for them to transfer high technology worldwide inside firms than through markets because of the limited risks of having them being copied or stolen by rivals. An innovating firm will invest resources to keep others from copying and stealing innovation produced within it. The appropriability theory suggests that MNEs develop mechanisms in order to prevent the loss of their technological advantages and these mechanisms can explain much of their behavior. In this context, the theory states that MNEs prefer to incorporate in their products very sophisticated technologies rather than simple ones. Sophisticated ideas and technologies are hard to copy and to stole and appropriability problem is minimized by this way. This preference of large international corporations for sophisticated products is actually one of the reasons for their magnitude and their market structure. Appropriability theory suggests that the structure of industry and the incorporated technological levels are jointly determined. The presence of a monopoly or oligopoly, *ceteris paribus*, encourages R&D and other investments in innovation because appropriability costs are lower for these industry structures. In turn, a major innovation encourages an increase in optimum firm size, so that industry structure becomes more concentrated. Thus, there is a two-way causation between high technology and industry structure. Takeovers and foreign investments are responses of the MNEs which aim to

expand their information network or to slow the depreciation of their information stock by absorbing potential interlopers.

Magee states that due to the preference of MNEs for high technology products, MNEs and their promoted products have limited use for developing countries, which are in need of simple production processes and simple products. The large proportion of skilled labor employed by the multinationals is an outgrowth of the skilled-labor-intensity of the production process for both the creation and the appropriability of the returns from high technological means used by the MNEs.

As long as innovating firms in an industry maintain their technological lead over their potential rivals and possibly emulators, the industry will remain young and able to produce new innovative products. When appropriability mechanisms break down (for example, when industry structure becomes less concentrated), emulators reduce the profitability of innovations so that the industry's product line moves towards more standardized products.

The appropriability model has some elements that are in line with Vernon's product cycle model and some that contrast it. Both models suggest that innovative production is kept inside firm boundaries and both models state that the innovativeness is subject to gradual devaluation. However, appropriability model states that foreign investments take place mainly in order to protect the innovative knowledge which is incorporated in the goods produced, which contrasts Vernon's theory which states that foreign investments appear when innovativeness has lost its monopolistic character and has become standardized.

### ***Application to the Transition Economies***

Regarding transition countries, appropriability theory can provide some insights on the foreign investments characteristics, incentives and determinants. This model puts in the second line cost related issues that so far have been in the forefront of the presented FDI theoretical models. Now it is innovation, information networks, protection and skills that appear as FDI determinants. FDI tend to focus on innovative products and as such they also tend to employ high skilled labor force, which in some transition countries can be found relatively easily, especially in Central European countries (Spagat, 2006).

Combining this with the need for expanding the need for their information networks, while also exploit oligopolistic patterns that protect their competitive know how, MNEs are expected to be attracted by privatization opportunities in strategic sectors (e.g. telecommunications) massively carried out in the countries of study (Nellis, 1998). Privatizations are able to provide in a very short time information network expansion, skilled personnel, quick dominant position in a market, which in turn will ensure safety for MNEs technological and information stock.

## ***2.6 Internalization Theory***

Dunning and Rugman (1985) referred to the dissertation of Stephen Hymer (1960) as the turning point in the theoretical interpretation of FDI. Hymer was the first to separate the study of FDI from the narrow context of neoclassical and financial theory. He focused on MNE itself by applying to it the industrial organization theory, in order to study its unique features and behaviors. According to this approach, the multinational corporation is a special form of business organization that maintains control over activities outside its national borders. Hymer considered MNEs as business organizations specializing in international production and not as cases of international exchange. However, his most important contribution was the concept of market imperfections and their relation to market internalization and FDI determinants.

Market imperfection is the inability of the market to allocate goods and services efficiently<sup>1</sup>. The term implies that market forces do not operate in the most optimal way, thus causing distortions. Some of the market imperfections can be corrected through government intervention, but this does not always take place, as such actions can also cause undesirable externalities which may further distort market's operation. Local market imperfections combined with market operation costs<sup>2</sup>, lack of confidence and opportunistic behavior from potential partners, are actually translated into cost terms and potentially can lead an investor towards a decision to internalize a specific market, in order to avoid these costs. Internalization means the integration of the transactions that are carried out by the market into the investor's business structure.

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<sup>1</sup> Examples of market imperfections are: monopolies, oligopolies, monopsonies, cartels, etc

<sup>2</sup> See Coase (1937)

Hymer (1976) stated that MNEs exist as a response to market imperfections and in several cases MNEs substitute trade. Due to internalization, country specific advantages usually resulting to trade are turned into firm specific advantage of MNEs leading to FDI. When there is a firm specific advantage, such as technology, managerial knowledge or other specialized information, this can be transmitted between countries within the MNE's internal market, substituting in many aspects trade itself. A tariff imposed for reasons of domestic industry enhancement will trigger FDIs in the host economy in a way to bypass the imposed barrier.

Due to the MNEs magnitude and their ability to internalize, substitute or supersede markets, MNEs can acquire factor inputs at a lower cost than rivals, they have better distribution and marketing facilities and they obtain monopolistic advantages in information, research and knowledge. If there were perfect goods or factor markets in the first place, then there would be no reason for an MNE to exist and free trade would prevail. It is for this reason that Hymer (1970) claimed that the general conditions of trade theory, which involve free factor movements and free trade, do not apply in the case of FDI, as owing to the FDI firm's increasing size, its presence in a particular market is linked to anticompetitive effects and causes more market imperfections. Rugman (1980) states that "once established abroad, the MNE will then use its internal organization to defend its market advantage".

Buckley and Casson (1976) used market imperfections and internalization to present a theory to explain FDI summarized to the following points:

- Firms aim to maximizing their profits despite the fact that they operate in imperfect markets;
- The existence of market imperfections is a strong incentive for the internalization of a market, as in this way open-market operation cost is avoided;
- The internalization of imperfect markets outside national borders, is called a foreign direct investment

The major factors that influence the tendency towards the internalization of foreign markets can be listed into the following three categories:

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*Factors that are related to products and market nature*

Those products that are related to knowledge, information, skills and experience, are specialized assets with almost zero marginal cost. Some of them possess several public goods features, their markets are substantially imperfect and some of them require huge amounts of capital, expertise and skills. Characteristic examples of such products are R&D linked products and strategic natural resources. The R&D nature causes a series of further market imperfections, as there is a lot of space for opportunistic behavior in a contract or a trade agreement, regarding such products. Strategic natural resources also require inputs that few organizations are able to provide which form strict oligopolies or even monopolies with high entry barriers in which market imperfection is rather the rule than the exception (Kronenberg, 2002). Therefore, in the cases of these products, the need for market internalization is increased.

*Factors that relate to the ability of a firm to organize its internal markets in an efficient way*

The efficient operation of a series of internal markets presupposes the existence of a coordination system that can transfer and check information in a reliable way. The existence of such a system is a result of the effective managerial skills of a firm. Management ability to direct multiple and complex activities simultaneously is the main tool by which market internalization will take place. The higher the managerial skills, the larger the enterprise will become, by internalizing additional market transactions in the various markets.

*Factors that relate to host countries*

Firms tend to proceed with FDI in countries that have either the necessary inputs for the use of FDI skills (e.g. capable human capital, infrastructure) or in markets that present consuming patterns that can be satisfied by the MNEs' products.

Buckley and Casson (1998) embodied their principles in a linear programming model, with a cost minimizing function, in order to calculate the best market entry method (licensing, franchising, Greenfield investment, joint venture, acquisition or subcontracting). The model indicated that the existence of higher tariffs, transport costs or technological advantages favors Greenfield investment. Technological advancements however do not favor acquisition and licensing through collaborative projects, as such

movements would put them in danger. When the cost of creating partnerships is increasing, Greenfield investment is again the most appropriate, whereas an increase in the cost of having access to information about a specific market or the cost of learning through experience, leads to the solutions of licensing and franchising while discourages Greenfield investment. Regarding subcontracting methods, results showed that it is not an appropriate solution due to firm's limited advantages in terms of marketing expertise and disproportionally large benefits for the domestic counterpart. In cases where monopoly rents were high with subsequent increased competition costs, the most favorable method is one that provides potential investor with long term control over his rival's production or distribution facilities. A method which fulfills these requirements is acquisition and to a lesser extent long term licensing. In cases where market access will take place via product distribution, the method of joint ventures is the most appropriate.

### ***Application to the Transition Economies***

Getting to the transition countries, internalization theory of FDI finds a particular fertile ground to be applied as the market imperfections were rather the rule than the exceptions. Actually in the particular countries, free markets hardly existed at all, at least in the form that these were known in the developed western countries. Therefore, the influencing parameters of FDI which relate to internalization effects are mainly related to the existence of market distortion factors, such as trade barriers, trade preventing policies, existence of certain interest groups (e.g. lobbying groups), while also the existence of corruption mechanisms or other bureaucratic malfunctions posing obstacles to potential investors. Apart from these, the internalization approach indicates also the kinds of products which actually attract internalization. These are products with particular features, like R&D related products and strategic natural resources, whose markets are characterized by severe distortions (Kronenberg, 2002). Regarding the latter certain transition countries are among the top producers of such resources in global level and as such, internalization theory applies particularly on them.



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## 2.7 Eclectic Paradigm

The eclectic paradigm is attributed to John Dunning and is considered to be the most widely applied and accepted FDI theory.

The theory approaches MNEs by classifying their motives for international action into three main categories, which are related to different aspects of the relational framework between them, host market and economy. The theory itself “*is not a theory of MNE per se*” (Dunning, 1971), but one which attempts to explain cross-border activities undertaken by MNEs. An important element of the eclectic paradigm approach is the embodiment of the market imperfection and internalization notions in its context (Dunning, 1980).

The eclectic theory considers three different categories of incentives for the initiation of an FDI.

### ***Ownership – specific advantages***

O – type advantages refer to a firm’s either structural or operational characteristics, which can provide to it competitive advantages both in domestic and international level. Such advantages can be related to the presence of capital and manpower, but also: technology, R & D skills, know-how, management techniques, international experience, organizational innovations, marketing and entrepreneurial skills.

O – type advantages are categorized further into asset advantages (O<sub>a</sub>) and transaction cost minimizing advantages (O<sub>t</sub>). The former refer to intangible assets like: property rights, organizational systems or human capital, whilst the latter refer to MNE features that provide cost reduction abilities e.g. privileged access to inputs. Such features are usually the results of a long-term presence in a particular market, combined with a substantial firm size. Obviously, these characteristics are mainly related to the firm itself rather than to the targeted market economy, despite the fact that in several times it is the nature or the market needs that determines primarily, which are potential investor’s competitive O-type advantages. The existence of monopolistic characteristics in specific firms is also an O – type advantage, which is in fact an indication that several features

belonging to this category are the result of specific market imperfections allowing for the emergence of monopolistic patterns.

### ***Location – specific advantages***

The next category of characteristics or advantages relates directly to host countries. These determine the motives due to which MNEs will decide to move towards a specific investment in a foreign market. Just like O – type advantages, L – type advantages are linked to either tangible or intangible assets. The existence of natural resources, cheap labor force, high quality human capital and also administrative regulations (e.g. investment incentives, favorable legislation, etc.), are some examples of both tangible and intangible L-type advantages. It is important to point out that, legislative regulations, in the form of restrictions, such as the existence of trade barriers, or investment enhancing legislative provisions, could also be seen as a form of L – type advantages.

### ***Internalization – specific advantages***

Internalization advantages refer to the presence of market imperfections as these were described in the previous paragraph. In fact, I – type advantages are directly linked to an economy's market imperfections that force a firm wishing to be present there to promote internalization choices. According to Dunning (1993), one such failure is the inability of a market to organize business transactions in the optimal way. The avoidance of negotiation costs, or broken contracts cost and the avoidance of trade related government interventions (e.g. tariffs), are examples of I – type advantages. Market internalization provide to MNEs unique exploitation opportunities and tools such as transfer pricing, predatory pricing or cross – subsidization.

The eclectic paradigm mode of operation depends on the extent to which a series of conditions are satisfied. The first of these is O – type advantages possession by an MNE. Assuming the existence of these advantages, the second determining condition is the extent to which a firm wishes to uses its ownership advantages which depends on the existence of I – type advantages (trade barriers, increased negotiation costs, lack of market information, etc).

If an MNE decides to move on the internalization process, that is, the previous two conditions are satisfied, the next MNE activity determinant relates to how the location specific advantages are combined with the ownership and internalization specific ones. When these advantages combine to a great extent, this indicates the potential realization of an FDI in a specific location.

The above described conditions are the theoretical framework of the eclectic paradigm. What is interesting with this particular explanation for MNE activity is its dynamic nature. A country with an increased tendency for the creation of O – type activities from its firms, is characterized as a country with an inclination for internationalization. The tendency towards FDI will be intensified, as more I – type advantages will appear in the world scenery. A country which offers resources and opportunities complementary to MNEs' I – type and O – type advantages, is likely to be one that will experience an increase in its FDI inflows.

Eclectic Theory has not stayed uncriticized. Itaki (1991) challenged eclectic theory's explanatory power and more specifically the nature of the O, L, I advantages. Itaki presents certain cases, such as a firm possessing ownership advantage e.g. good R&D skills that double its productivity (in engineering terms) when compared to a rival firm. The engineering advantage, according to the author, does not mean that this is also an advantage in economic terms, as this may be accompanied by higher production or R&D costs and the beneficial character of this type of advantage is determined only by its profitability. However, profitability depends only on the way in which the firm appropriates the particular advantage's economic rent. Therefore, all advantages are related to internalization issues, which implies that, O – type are actually I – type advantages.

In the same line, the author continues his critique by examining the O – type and L – type advantages. According to his analysis, what is usually understood as an ownership advantage, like a good R&D scheme, must always be examined in monetary terms as well, in order to conclude whether it is a real advantage or not. In the process of monetarizing the impacts of this advantage, it is inevitable that factors related to input cost, tangible or intangible, will be considered. The latter, however, are always related to certain locations and therefore are actually L – specific characteristics. According to

the author, even Dunning (1981) mentioned that “... *a firm possesses net ownership advantages vis-à-vis firms of other nationalities in serving particular markets...*” It is possible that in certain markets some characteristics of a MNE will appear as O – type advantages, but in others these characteristics may not appear at all, owing to the fact that their costs do not allow it. What is important is to distinguish the innovative part of the advantage (or the engineering terms, as these are called by the author) from the pure economic terms.

Itaki criticized further the eclectic paradigm with regards to the L-type advantages, despite the fact that the latter seem to be the most straight forward advantages, in terms of categorization. He argued that L-type advantages also mislead due to cost related issues. The fact, for example, that labor cost in some locations is low and therefore attracts labor intensive foreign investment, may have an impact on the potential of a particular market. Therefore, issues like exchange rates and export orientation or not of a firm must always be included in the categorization, even when considering L – specific advantages.

Buckley (1988), referring to eclectic theory, also mentioned that apart from internalization – specific features, Dunning added ownership specific advantages as well. However, he argued, if the eclectic theory is seen from a dynamic point of view, ownership advantages will have been double counted. In the same line Rugman (1981) stated that the concepts of ownership and location were accounted in the eclectic theory. Kojima (1982) argued that both the eclectic paradigm and internalization theory are micro-economically oriented, that is, they are focusing on developments at firm level. Therefore, these can hardly be used as tools of studying macroeconomic issues. However, the latter is not absolutely true, as L-type advantages are able to embody a series of macro – economic parameters, such as low inflation, favorable legislation, infrastructure levels, market potential which can be reflected to GDP, etc.

### ***Application to the Transition Economies***

The application of the eclectic paradigm onto the countries of the study requires the identification of all the parameters that could potentially have an impact on the incoming foreign investments and could fall in one of the three categories, that is ownership, location or internalization parameters. More specifically, in the transition

countries of interest, O-type determinants include potentially all those MNE features that can be utilized in a competitive manner in a particular transition country. Such parameters include specialized know-how, high managerial skills, the existence of an extended international network, the ability to push costs down, labor availability in favorable price, the ability of competitive services provision, while also the existence of secured finance.

The internalization group of determinants include all market imperfection-related parameters that have already been stated in the internalization theory, such as the existence of trade barriers, lobbying groups or market distortions arising from high corruption levels and bureaucratic abnormalities, while also products which by nature cause market imperfections and distortions, e.g. oil and other strategic type natural resources which are in abundance in certain transition countries (Kronenberg, 2002).

Finally the location type determinants for the transition countries include all country specific features, such as natural resources abundance (Campos and Kinoshita, 2003), location particularities e.g. landlockness, infrastructure quality, perspectives of participation in regional and economic groupings e.g. EU or CIS, which play a particularly significant role for the Central European and the Balkan countries, the existence of high human capital level both in terms of skills and living standards (Spagat, 2006), while also economic conditions such as low labor costs or unemployment (Brusentsev and Vroman, 2008), which have direct impact on production cost issues.

## ***2.8 Investment Development Path***

Dunning (1981b) developed a model that links the sequent stages of economic development in a country with both inward and outward FDIs. More specifically he correlated the kind of foreign investments with the host country's economic development stages as follows:

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*First Stage*

In the primary stages of economic development, the majority of a country's advantages are related to the existence of natural resources. The country is unlikely to achieve capital accumulation, except in primary sector industries. The attracted FDIs are labor intensive or resource seeking and at this stage L – type advantages are limited, apart from the cases of the existence of rich natural resources with strategic character (e.g. oil, uranium, etc.)

*Second Stage*

As economic development proceeds, local market expands and the economy starts to obtain the necessary skills to initiate the production of low cost products making use of standardized technology. Natural resources continue to be in the centre of interest and development strategies are directed either towards the attraction of FDI or import substitution. Country's competitive advantages are channeled into capital intensive sectors that require at least middle-scale production. If the country manages to establish a reliable and operational institutional system, together with a framework of public services (communications, infrastructure, transport facilities, education) and an investment promoting business culture, then country's L – type advantages will increase. Moreover, as L – type advantages improve, the same happens with O – type advantages of some local firms. Incoming FDIs focus mainly on the exploitation of cheap labor force, but in addition they introduce new production methods, some of which are also used by local developing firms, contributing by this way to the creation of scale economies. The critical factor at this stage (and also in the first one) is government policy, because this is the only mechanism able to take the necessary actions that will cause and enhance these developments.

*Third Stage*

Third stage is characterized by an interest in innovation. It is assumed that both investment level and living standards are high and demand is now focused on quality products of high-income elasticity, adjusted to consumers' preferences. Firms start to have R&D departments, especially when relevant government policies have enhanced high quality human capital accumulation. These features attract FDI wishing to exploit country's infrastructure, skilled personnel, etc. and embody these with the skills of the

home firm (rational FDI). The transition from the second to the third stage is, of course, a matter of suitable government policies.

#### *Fourth Stage*

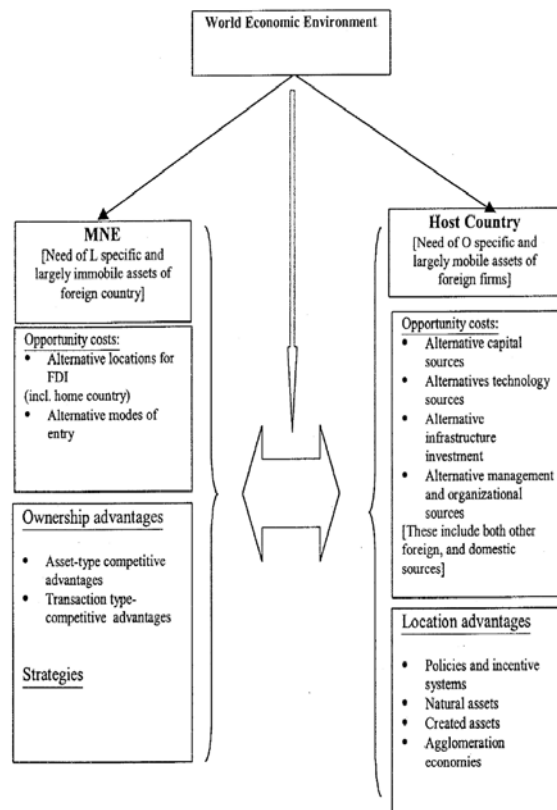
During the last stage of economic development (also called post-industrial), production is focused on knowledge-intensive products. R&D departments, which are responsible for new products and services and are organized not only at national, but also at global level. By this stage both inward and outward FDIs are of a strategic type and search for inputs (tangible and intangible) able to strengthen MNE's international position. Usually at this stage outward FDIs exceed inward ones.

According to IDP, not all countries pass through all stages of economic development and depending on the stage which a country is found to be at, FDI inflows and outflows have different features, scopes and importance. Government policies and economic development stage are both critical determinants of the FDIs in a country. Ozawa (1975) studied the emergence of Japanese MNEs and stated that their development was actually influenced by the macroeconomic conditions of both the home and host country, which is actually a verification of the investment development path (IDP) theory.

IDP theory can be seen from another point of view. An FDI is the result of a bargaining process between an MNE and the host country and in this bargaining process each of the participants tries to maximize its gains. More specifically, an MNE wants to maximize its profits and to achieve its future goals regarding its position in the international business arena while the host country is seeking to maximize its constituents' welfare. The two distinct participants in this bargaining process and the bargaining process itself are demonstrated in Figure 1, prepared by Lecraw and Morrison (1991). Host countries' governments try to exploit their L – type advantages, whilst the MNEs try to exploit their O – type advantages. At the same time, both parties face opportunity costs that have to be taken into consideration. For the host country these relate to alternative capital and technology sources and investments, whereas for the MNEs these are related to alternative locations or modes of entry. Narula and Dunning (2000) claimed that the outcome of this bargaining process determines the kind of FDI that the particular country will attract. However, as in every negotiation, the outcome is determined by the bargaining power of the negotiators. The bargaining

power for the host country is largely determined by its development level and this is probably one of the reasons why less developed countries are not attracting the kind of foreign investments that the newly industrialized countries are able to.

Figure 2.1 The bargaining process between MNEs and Host Countries. Source: Lecroy and Morrison (1991)



According to Narula and Dunning's (2000) study, countries can be classified into three categories. The first includes those countries that are considered as developed and wealthy, which are globalization protagonists and main FDI sources. These countries appear to experience a convergence in their economic performance, either in terms of their technological capabilities, or their income and development levels. The second group includes those developing countries, demonstrating high development and industrialization levels and in the future it is very likely that they will converge with the first group of countries. Finally, the third group includes a large number of countries, which are poor and, not only do they not show any signs of catching up with the other two groups, but they are also diverging from them.



FDI statistics actually confirm Dunning and Narula's approach of seeing FDI actualization as the result of a negotiation process between MNEs and host countries. The resulting country classification according to the bargaining position of each country, which is also determined by its development stage, is confirmed by the fact that the majority of FDIs are found among the developed countries. During the past two decades, according to Dunning and Narula (2000), the relative share of FDI in developing countries has only increased from 13.8% to 15.2%. Moreover, in the same period, regions, like Africa, have experienced reductions in their FDI flows. Gray (1996) somewhat confirmed Dunning and Narula's position, stating that the amount of benefits that the least developed countries could get from FDIs would decline as a result of their inability to attract and embody high value added activities and sectors.

### ***Application to Transition Economies***

Referring to transition countries, IDP approach, apart from the parameters already mentioned in the eclectic paradigm particularly stresses the importance on two variables. The first of these is host country's economic development, which is actually the catalyst that will allow and attract sophisticated foreign investments that may have a beneficial impact on the economy promoting even further economic development. Economic development in turn includes parameters such as economic growth, education level, living standards, life expectancy and sophisticated infrastructure. The transition countries experienced serious and rather sudden changes in the majority of these variables. The second variable which is important according to IDP is the existence of appropriate host country institutions and policies, which together with economic development will create a strong framework that will be able to attract the investments that the economy needs (Lin, 2009; Campos and Kinoshita, 2003). Therefore, for the transition economies, all the above mentioned economic development parameters and the institutional environment with its subcomponents (bureaucracy, rule of law, integrity) are among the most important FDI determinants.

## ***2.9 The Relation between MNEs, Home and Host Countries***

Multinational enterprises, through time, have attained a series of distinctive features. The first of these is size. Many MNEs now employ several thousands of employees, if

not tens of thousands in several countries and their assets are vast and spread throughout all continents. Such magnitudes bring remarkable economic power, which in several cases can be easily compared to some small countries' GDP. Moreover, MNEs' presence in the international market with remarkable assets and economic power, guarantees their immediate access to financial sources, enabling them to implement and actualize their investment plans and thus achieve their goals. In addition, MNEs' international presence in the majority of the bigger and most important world markets provides them with high flexibility and allows them to face almost the entirety of difficulties that could arise, if not in the most profitable way, at least in the least harmful way for them. The deployment of highly skilled personnel, who act in the forefront of R&D in several sectors, also guarantees their survival in a highly competitive environment, where an ordinary firm would become obsolete and quickly eliminated. Finally, MNEs' international experience, exceeding in certain cases more than 100 years, provides them with the ability to search very early and exploit business opportunities that may arise in countries all around the globe.

It is obvious, that MNEs appeared at some point in time as ordinary business units, but managed to magnify themselves gradually into today's levels. It is not in the scope of this analysis or research to define the factors, or the forces that have contributed to the transformation of ordinary business firms into today's corporate giants with global presence. What is of primary interest is not their size and economic power itself, but their attitudes towards the economic and institutional environment. As it was also mentioned before, the enterprises in a country's market are subject to its market regulations. MNEs though, owing to their size and international presence, are sometimes above and beyond the reach of these and operate under completely different conditions. They are found to be at the level of having direct contacts and negotiations with governments and government groupings (both hosts and home). Therefore the MNE today, apart from its economic nature, has also obtained the ability to interact with political entities, which enables it to influence the prevailing conditions in the international economic and sometimes even political scenery. Several authors have tried to describe the emergence of this situation and the fact that MNEs and FDI do not use merely economic tools, but a combination of political and economic one. Vernon (1971), for example, describing the spread of US Multinationals after the end of WWII, saw an asymmetric context of relations between weak but sovereign states and

economically powerful and geographically flexible multinational companies. In the same vein, Tanzer (1969) referred to the multinational oil companies and their relation to the developing oil exporting and importing countries and found out that the latter were being exploited overtly.

These examples show that MNEs are often autonomous organizational units performing in the “space” above nation states, with goals and missions, the achievement of which require effective application of both the economic and political power that they have. Hernes (1973) described the relations between the participants in MNEs’ activity, which are: the MNE itself, the subsidiaries (FDIs), the countries of origin and the host countries. The relations, according to him can be either cooperative or conflicting. The interesting thing is that all combinations between participants are possible, for example, conflict between the MNEs and the home countries and conflicts between MNEs and their subsidiaries, etc. It is important to stay in two relations, in the context of this thesis, those between MNEs and the host and home Countries, as these relationships determine the nature and realization of an FDI.

Hernes (1973) stated that MNEs and their home countries’ governments have been accused of promoting each other’s interests, that is, MNEs apply and further their own government’s foreign policy aims abroad and the home governments are being used by them to promote their own interests. The unique feature of this relation is that both parties are significantly powerful. The history of FDI is full of examples of such cooperative means which in certain cases even reached the stage of military conflict. The Banana Wars in the 1930s, during which a US military campaign in the Caribbean was carried out in order to protect the investments and the interests of the United Fruit Company in that region, is one of the most notorious examples of the cooperative nature of the relation between home countries and MNEs<sup>3</sup>. In recent history and on European ground, the close ties between some Russian corporate giants, like Lukoil and the government of Russia, are also example of relations of this nature. However, there are cases, in which relations stop being harmonic and this has to do with the divergence in vested interests. The reality is that home countries are much more politically oriented than MNEs and together with their economic goals wish to extend their political

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<sup>3</sup> A similar military campaign with the same incentives was repeated in Grenada in 1983.

influence, whereas the MNEs' main aim is to increase their profitability and economic strength. This goal differentiation is the most common source of problems between home countries and their MNEs. Examples of such problems are the loss of jobs due to the MNEs' movement of production abroad that drives people in their home countries into unemployment. These people that could be employed, if the MNEs chose to keep production in the home country, can influence political parties and governments through their vote, thus leading MNEs in conflict with home country government. Moreover, even strong economies need income from sources like taxation, which in many cases the MNEs can avoid through their international flexibility, causing another point of friction.

Moving on to MNE – host country relations, these can also be either conflicting or cooperative. The fact that the majority of countries welcome foreign investments, particularly those that contribute to the improvement of their economic performance and manufacturing infrastructure (e.g. Greenfield investments rather than mergers and acquisitions or portfolio investments), is something that does not need to be proved. However, the term cooperation, as Hernes (1973) mentioned, is applicable only among equals and this rarely happens with MNEs and host countries, especially when the latter are developing countries that tend to be dependent on MNEs. However, as Dunning pointed out (1971) and as was also discussed in this chapter when describing the investment development path theory, things can improve in terms of the host countries' competitive advantages, if the host countries manage to create the appropriate economic and institutional environment that could enhance more equal cooperation with the MNE. The other side of the relation, that of conflict, does occur in many cases, mainly owing to the fact that the expected benefits from the appearance and action of MNEs are much less than those initially estimated and expected. The self-sufficiency of MNEs probably will reduce the beneficial spillover effects to local companies and in case of primary resources exploitation, the sense of dependency may also significantly increase, because of the vast amounts of foreign capital required.

Boddewyn (1988) suggested an enrichment of Dunning's eclectic paradigm, so as to include these issues arising from the relations between MNEs and states. Dunning himself included in his paradigm the political element, in the form of government interventions and its role in the creation of the OLI advantages, but left that as

completely exogenous, thus excluding the bilateral character of this process. According to Boddewyn, O – type advantages should be expanded, in order to include: better intelligence of MNEs about the political forces and their representatives, the ability to have access to decision makers and the acquisition of sophisticated skills for influencing other interested parties. These advantages could be used to close or to open markets. In the case of I – type advantages, things appear to take different form. The politics of the host and of the home countries appear to be market like, in which there are some political intermediation products that can, to some extent be internalized by the MNEs. These are the knowledge and expertise of the: political, social and cultural environment and beneficial government decisions. These “products” can be obtained in the political market by recruiting or even internalizing specific agents, which sometimes bear the names “door-openers” or “5 percent men”, etc. This implies that corruption practices can be seen as an indirect method for internalizing the political market by MNEs, which comes as a result of its imperfection. Rugman (1981) described the whole process briefly by saying that the market imperfections generated by governments encourage the development of an internal market by MNEs. In the same vein, Banfield (1975) wrote about the political market where the bribes are not only offered but are actually demanded by the state representatives. Finally, L – type advantages should also be expanded to include political features of the host countries and this in turn relates to the character and orientation of the MNEs. For example, the existence of weak or corrupt state structures could potential attract investing multinational firms who consider it to be either an L-type or an I-type kind of advantage which can serve their goals better (Subasat and Bellos, forthcoming)

This short description of some of the aspects of the relation between MNEs and nation states is not conclusive, as it is much more complicated and also concerns the relationships between the MNEs themselves, which are highly complex; sometimes involving indirect confrontations between the different home countries. It is obvious, however, that the case of the MNEs substantially moves away from the context of simple and technical economic analysis. This could possibly be one explanation of the trade models inability to explain FDI behavior.

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## 2.10 Conclusions

This chapter has described the most predominant theoretical approaches to FDIs and has tried to indicate in a primary stage the most prominent factors of groups of factors which determine foreign investments in the transition countries according to the various theories presented.

All presented theories provide certain FDI incentives and operation modes aspects. Hirsch's investment and trade theory stresses the importance of production, coordination and technology development costs in determining whether a foreign investment is realized. Vernon's product cycle model combines production cost issues with the stage at which a product is found in its life cycle, stating that when production gets standardized and product's oligopolistic features are diminished, FDI take place in order to exploit cost reduction opportunities appearing in locations abroad (low labor cost, large labor availability, human capital quality at favorable prices, access to primary resources). Magee's appropriability theory differentiates from Vernon's product cycle in that it suggests that it is the risk of having technological advancements leaks to competitors that forces MNEs to proceed to FDIs in order to keep these inside MNEs boundaries. Internalization theory is undoubtedly the approach that set the FDI theoretical discussion into new dimensions by introducing as one of the most important FDI determinants the markets imperfections (existence of barriers, institutional weaknesses such as bureaucracy, corruption mechanisms, etc) which force a foreign firm to enter markets by internalizing the imperfect parts of it. Dunning with his eclectic theory managed to combine all critical elements of previous FDI theories. He suggested that FDI appear when three different categories of parameters converge, which he named ownership (firm's competitive advantages), location (e.g. primary resources, low production costs, market potential) and internalization advantages (existence of trade barriers, institutional weaknesses, delaying bureaucracies, high corruption levels). Dunning suggested an alternative FDI theory, named Investment Development Path, which combined eclectic theory's basic principles with host country's economic development stage (economic growth, living standards level, institutional quality) and actually set the basis for the approach of FDI as the outcome of a negotiation-like process between MNEs and Host Countries. In the same context the analysis of this interaction between MNE and Host countries showed that there was

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always the belief that these large business entities were something more than simple economic units subject to the known laws of economy. An MNE creates alliances, it confronts enemies globally, it chases its goals, but the most important of all is that it is, to a very large extent, a direct negotiator with states and thus has strong bargaining power enabling it to influence the conditions under which it will act. And the means which MNEs are able to use can include exploitation of host country's institutional nexus weaknesses.

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## ***CHAPTER 3 The Countries of Study and the Transition Process***

### ***3.1 Introduction***

As the focus of the thesis is on transition countries, the present chapter aims to present and describe both the countries of study and the main aspects of their transition process from the central planned economy regime to that of open market, identifying by this way this process' parameters that could possibly had an impact on incoming foreign investments.

The chapter is structured as follows. Section 3.2 contains the description of the countries of the study. More specifically, Section 3.2.1 categorizes the countries in the transition zones, Section 3.2.2 presents basic demographical and geographical data, Section 3.2.3 refers to the existence of colonial links, while Section 3.2.4 discusses the impact of EU vicinity on the transition economies and their inward FDIs. The transition process is analyzed in Section 3.3 in terms of: former regime collapse symptoms, the process' initiation, its economic content, the sequence and speed of the imposed measures and the measures' impact on incoming foreign investments. The chapter concludes with section 3.4



### ***3.2 The Geographical Area***

#### ***3.2.1 The Countries***

The research is exclusively focused on Central, South-Eastern Europe and CIS (Commonwealth of Independent States) transition economies. The countries can be classified into three different geographical regions:

##### ***Balkan Countries***

Albania, Bulgaria, the Former Yugoslav Republic of Macedonia (FYROM), Romania, Serbia - Montenegro, Croatia, Bosnia – Herzegovina (7)

##### ***Central European Countries***

Hungary, Czech Republic, Slovakia, Slovenia, Poland, Estonia, Latvia, Lithuania (8)

##### ***Ex-Soviet Countries (CIS countries)***

Russia, Belarus, Moldova, Ukraine, Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyz Republic, Turkmenistan, Tajikistan, Uzbekistan (12)

The total number of countries involved in the context of the present dissertation is 27 and the geographical area ranges from Central Europe to China. Baltic countries (Estonia, Latvia and Lithuania) could be considered as a separate geographical group, as they had formed a distinct bloc in the former Soviet Union. However, owing to the close proximity of these countries to the geographical core of Europe and their cultural links with it, they have been listed together with Central European countries. For the same geographically related reasons, Slovenia, being a former Yugoslav Federation ex-member state, is also listed together with Central European countries, despite the fact that the rest of the countries that emerged following the Yugoslav Federation's disintegration were all listed as Balkan countries.

### 3.2.2 Geographical data for the Transition Countries

The following table contains information regarding the three transition areas and their member states.

*Table 3.1 Geographical and Demographical Data of Transition Areas. Source: World Bank World Development Indicators 2007, CEPII, CIA World Fact book*

#### Balkan Countries

Nr.	Country	Land Area (km <sup>2</sup> )	Population	Median Age (years)
1	ALBANIA	27,400	3,129,678	29.5
2	BULGARIA	110,630	7,740,928	41.1
3	FYROM	25,430	2,034,060	34.8
4	ROMANIA	229,950	2,163,2148	37.3
5	YUGOSLAVIA	102,000	8,168,414	37.5
6	CROATIA	55,920	4,444,451	40.8
7	BOSNIA – HERZEGOVINA	51,200	3,907,074	39.4
	<b>TOTAL</b>	<b>602,530</b>	<b>51,056,753</b>	<b>Average: 37.2</b>

#### Central European Countries

Nr.	Country	Land Area (km <sup>2</sup> )	Population	Median Age (years)
1	HUNGARY	92,090	10,087,914	39.1
2	CZECH REPUBLIC	77,270	10,196,360	39.8
3	SLOVAKIA	48,080	5,387,152	36.5
4	SLOVENIA	20,140	1,998,200	41.4
5	POLAND	306,240	38,165,404	37.6
6	ESTONIA	42,390	1,345,005	39.6
7	LATVIA	62,050	2,300,027	39.9
8	LITHUANIA	62,680	3,415,046	39
	<b>TOTAL</b>	<b>710,940</b>	<b>72,895,108</b>	<b>Average: 39.1</b>

#### Ex- Soviet Countries

Nr	Country	Land Area (km <sup>2</sup> )	Population	Median Age (years)
1	RUSSIA	16,380,980	1.43E+08	38.3
2	BELARUS	207,480	9,775,591	38.4
3	MOLDOVA	32,870	4,205,747	34.3
4	UKRAINE	579,350	47,110,920	39.4
5	GEORGIA	69,490	4,474,404	38.3
6	ARMENIA	28,200	3,016,312	31.1
7	AZERBAIJAN	82,600	8,388,402	27.9
8	KAZAKHSTAN	2,699,700	15,146,081	29.3
9	KYRGYZ REPUBLIC	191,800	5,156,000	24.2
10	TURKMENISTAN	469,930	4,833,266	22.6
11	TAJIKISTAN	139,960	6,506,980	21.6
12	UZBEKISTAN	425,400	26,593,124	23.2
	<b>TOTAL</b>	<b>21,307,760</b>	<b>2.78E+08</b>	<b>Average: 30.7</b>

The studied region covers a total population of 402 million people and a land mass of 22 million square kilometers. Regarding population, the Balkan transition countries population is 51 million, which is 12.6% of the total of the countries included in this study. The Central European countries' population is 73 million, which is the 18% of the total. Finally, Ex-Soviet Countries population is 278 million people, which is 69% of the total. From the land size perspective, the Balkan countries comprise 2.6% of the total area of the transition countries, the Central European countries make up 3.14% and the ex-Soviet nations contain the vast majority, at 94%. Overall, it is obvious that the studied area is vast and includes a large market of 402 million people (EU's population was 499 million) with high potential and increasing demands especially after the end of the transition period.

The median age gives an indication of the age distribution in a country and also of the prevailing living conditions. The above statistics show that the ex-Soviet countries have a considerably lower median age than that of the rest of the countries. A low median age can either indicate an increased rate of births or a low life expectancy, or a combination of the two. In general low median age values are linked with the presence of low economic growth and development (Gomez and Foot, 2003), which in turn can have a negative impact on incoming foreign investments according to the theoretical approaches presented in Chapter 2.

### ***3.2.3 Colonial Links***

The countries under study geographically belong in an area which is influenced by the existence of two large economical and political entities, EU and Russia. Central European Countries are located between EU and Russia and as such are equally influenced by both of them, the Balkans are rather closer to EU, while the Ex-Soviet countries are certainly closer to Russia and some of them already participate in the Commonwealth of Independent States (CIS), a form of loose descendant of USSR. The existence of these entities can influence incoming FDIs in many ways. Geographical vicinity in terms of common borders or small distance from major economic and investment sources enhances investments realization by means of reduced transportation

costs. The existence of common language reduces information and co-ordination costs and denotes possibly the existence of common culture and possibly ethics that could ease further investing attempts between entities sharing some common values.

Apart from that and due to the fact that the transition countries region in the past was within the influence sphere of large powers or empires (e.g. Austria-Hungary, Russian empire, ottoman empire) some of which remarkably still exist in other forms poses another parameter for consideration, that of colonial links, which in turn can have both positive and negative impacts on incoming foreign investments depending mainly on the collective memory that MNEs home countries had left to target countries. Historically there is a close link between FDI and colonialism. Dunning (1993) stated that in the 16<sup>th</sup> and 17<sup>th</sup> centuries, one of the main kinds of “FDI was to promote colonialism and land development”.

Frieden (1989, 1994) has studied the links between colonial links and Multinational Enterprises in a historical perspective and found that home countries with colonial links to other countries were focusing mainly on investments on primary production and exploitation or in schemes providing basic infrastructure services, such as railroads, etc. The reason for this preference was due to the fact that in the past the protection of the property rights on this kind of investments were better achieved through the activation of various colonial channels of influence, sometimes including the use or the threat of the use of force.

However, the existence of colonial links does not have the same effect on incoming foreign investments in all cases. Abderrezak (2008) studied the relation between incoming FDI in 16 countries in the MENA region and found out that the long term colonization memory was negatively and significantly linked to FDI inflows in the region.

### ***3.2.4 The European Union and its Integration Trend***

Today, European Union (EU) after a series of expansions and nearly half a century of existence comprises 27 member states and its geographical area ranges from the

Atlantic to the Black Sea and the Eastern Mediterranean in the South and from Ireland to Russia in the North. EU has managed to adopt a common currency unit in the monetary field. However, it has had poor performance in finding and taking those measures that could make the union appear as a truly unified political entity, which in turn has highlighted its weaknesses in the recent economic crises. EU has serious economic and political interests in the majority of the transition countries. More specifically, EU has been aiming to attract transition countries gradually into its structures, for several reasons. These being: market expansion with elimination of trade barriers, regional integration of the European land which still remains scattered in a great extent, easier access to other markets, (e.g. Black Sea ones), whilst also EU jurisdiction expanding to neighboring areas of special interest (e.g. Middle East, Russia) and last, but not least, gaining easier access to energy routes<sup>4</sup>.

The gradual embodiment of some of the transition countries in the EU will have a series of impacts on issues that are directly linked to investment flows. The elimination of trade and investment barriers, in combination with the existence of low labor costs together with natural resources will certainly attract foreign investors that will see in such developments unique opportunities for improvement of their EU market position. At the same time and due to the fact that EU membership presupposes the adoption and implementation of certain policies and measures of both political and economic nature, foreign investments will be attracted as the new member states will provide better property rights and less economic and political uncertainty (Kazaluskiene and Meyers, 1996). On the other side however, EU membership assumes that all EU restrictions (e.g. trade related regulations) will be also valid to the new member states which may cause to some MNEs to lose some of their competitiveness.

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<sup>4</sup>One of the issues of major importance for the European Union is its energy supply, owing to the increase in its energy demands and the absence of adequate energy sources that could satisfy these needs in the long term.

### ***3.3 The Transition Process***

#### ***3.3.1 The Symptoms of Collapse***

The role of economy in the initiation of the transition process is undoubted. Central planning economic principles and practices, after being implemented for almost seventy years, started facing difficulties. According to Lavigne (1999), the main symptoms of the system's inefficiency were the following:

- Declining economic growth;
- Low labor and capital productivity, with the output per worker decelerating over time and the output per unit of fixed assets declining, especially in mid 1970's;
- Slowly Implemented technical progress and growing technology gap with the West;
- Increasing military demands absorbing a very large GDP share;
- Agricultural sector remaining backward and losing the ability to provide food self-sufficiency;
- Low living and consumption standards, compared to the average of the western economies.

The full range of reasons that led to the above mentioned difficulties is very complex and their analysis gets out of the scope of the present analysis. It is, however, important to notice that the relevant literature has suggested several causes of social, political and economic nature that have led to that situation (see Lavigne 1999, Easterly and Fischer 1994, Bergson 1991).

#### ***3.3.2 The Basic Economic Content of Transition***

Transition, in general, is the process of transformation from socialism to capitalism. This transformation, amongst others, involves macroeconomic related variables. The Washington Consensus is the name given by Williamson (1989) to a package of 10 measures that were considered to constitute the basic and critical programme, which should be applied by countries whose economies were in crisis or in a stage of transformation. The name Washington was given to them owing to the support for and

promotion of these measures by a series of organizations based in that city, such as: the International Monetary Fund, the World Bank and the U.S Treasury Department. Theoretically, the measures proposed were not mandatory for any country, but the fact that they have been strongly supported by a series of international organizations, like the ones mentioned above, who have the authority and power to decide on the direction of international funds to emerging countries, inferred on them a kind of mandatory character for their adoption. The package included 10 measures, which are listed below:

- Fiscal Discipline
- Public Expenditure Priorities change
- Tax Reform
- Financial Liberalization
- Exchange Rates
- Trade Liberalization
- Foreign Direct Investments encouragement
- Privatization of State-Owned Enterprises
- Deregulation of Economic Activity
- Property Rights

The Washington Consensus (WC) is also known as “Market Fundamentalism”<sup>5</sup> and reflects the very core ideas of neo-liberalism, according to Stiglitz (2001). Due to that, it has received a large amount of criticism, mainly because it is considered to be a means for “clearing” economic field, to allow for the un-obstructed “invasion” of multinational enterprises.<sup>6</sup>

Despite criticism, the main macroeconomic stabilization measures, which were adopted in the countries under study, were oriented in the same direction. The main measures that were taken in this direction are listed below:

#### *Price Liberalization Policies*

These included the reduction of subsidies to consumer and producer prices and the deregulation of price fixing.

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<sup>5</sup> The term was used by George Soros (1998) in his book “The Crisis of Global Capitalism”

<sup>6</sup> Stiglitz (2001) refers to the case of the Argentine Economic Crisis of the period 1999-2002 and the intervention of the World Bank and the IMF, to show that the particular measures do not aim to make an economy strong and healthy but to ease MNEs’ operation

*Government Budget Balancing*

This would be achieved through: taxation increases, better tax collection mechanisms and reduction of government expenditure, in addition to elimination of price subsidization.

*Monetary Policy Improvement*

Central bank interest rates were increased, in order to yield a positive real interest rate. At the same time stricter regulations were posed for bank lending to individuals or business entities.

*Inflation Control*

Controlling inflationary pressures was attempted mainly through wage increases discouragement. Moreover, there was stricter control over money supply and the central banks were granted increased independence.

*Foreign Trade Liberalization*

One of the most fundamental transition aspects was the opening of the domestic market to international trade, through the lifting of export and import restrictions. In the same vein, issues related to domestic currency exchange rate had to be settled. In the majority of countries involved, domestic currency was devaluated, in order to reach real market levels, which in certain cases were identical to those of black market (Lavigne, 1999).

Additionally to the above measures, there was a series of structural measures also aimed at creating a private market economy, the most common of which were the following:

*State Monopolies Dismantling*

This included the privatization schemes launching, introduction of free competition in all sectors, together with free business creation.

*Creation of a Flexible Labor Market and a Viable Social Safety Net*

During the central planning regime, employment was secured by the State for the vast majority of the population. The new conditions required absolute flexibility of the labor market, in order to create one that was competitive and efficient. At the same time, there



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was the need for a social safety system that would replace the former one and would cushion the impacts of the required adjustment. However, the viability of the new social security schemes was secured by means of reduced provisions.

#### *Reform of the Banking System*

The necessity of a modern and efficient banking system required the conformity of banking activities in the transition countries with the international regulations regarding capital adequacy and risk management. The Basel Convention (I and II), issued by the Bank for International Settlements (BIS) provided a standardized context of regulations that the banking systems had to adopt, in order to control their exposures to risk and maintain a minimum capital adequacy.

#### *Introduction of an Industrial Policy*

Most of the countries under study were industrialized in the previous regime; however, their efficiency was doubtful (Escoe 1995). The initiation of transition and the need for adjustment to a completely competitive environment, led to the identification of those industries that had the ability to keep up with the new standards and therefore were worthy of receiving subsidies and those who did not have such perspectives and subsequently lost out. The latter had to be restructured, which frequently meant having to stop operating or being privatized. It is important to mention that the WC framework does not advocate, explicitly, any particular industrial policy.

### ***3.3.3 The Sequence and the Speed of the Measures***

Apart from the essence of measures described above, there were two additional important issues regarding their implementation. These related to the sequence, and speed of the implementation. The decisions made on these phenomena, to a large extent, made each country's transition a different case.

Regarding sequence, there were many different opinions about the liberalization of prices. The policymakers feared that owing to the fact that the majority of the large companies were state enterprises, with the ability to impose monopolistic conditions, the liberalization would lead to a large increase in prices, accompanied by a

simultaneous increase in wages (Lavigne, 1999). This would lead rapidly to a difficult to handle inflation spiral. There were many suggestions that liberalizing and the rest of the reforms would have to wait for the de-monopolization of the market and especially a small scale one that would create the conditions for strong popular support (Barlow and Radulescu, 2005).

Another sequencing issue was foreign trade liberalization. Its implementation included: the opening of the domestic market to foreign firms, the devaluation of the national currency and the convertibility of the current account. These would ensure the activation of the competition mechanism in the domestic market, so that prices would not increase without control. However, there were concerns about its timing. Many suggested that the market was too immature to be exposed to international firms and domestic firms would soon face extremely difficult conditions from competition, with limited probabilities of survival, as they would be too inexperienced and ill-equipped and thus unable to deal with such a challenge (McKinnon, 1992).

The successful implementation of the reforms was hindered by hostile prevailing conditions. Therefore, what was critical in the end was the determination of the policy makers to actually carry out reforms. On this particular issue, the Central European countries succeeded more than the Balkan and the ex-Soviet transition countries (Lavigne, 1999)

Regarding the speed of the reforms, there were two different approaches. These were the big bang and the gradualist approach. The first, which is also known as shock therapy, proposed a rapid implementation of the measures, which would have to be integrated, despite the nasty social impacts that it would introduce. The second approach, contrary to the first, suggested a gradual implementation, so that the impacts on both society and the economy would be softened.

Amongst the transition countries that chose shock therapy were: Russia, Poland, Czechoslovakia, Estonia, Latvia and initially Bulgaria. The countries that can be said to have chosen a more gradual approach were: Hungary until 1995, Slovenia, Romania and Lithuania. The non-European transition countries, like China and Vietnam, have all

chosen the gradualist approach to the market economy. As Sachs and Woo (1994) mentioned:

*“The Chinese response to the failure of the experiment in Eastern Europe and the Soviet Union was the official abandonment of the so-called planned commodity economy in favor of what Chinese leaders termed a socialist market economy with Chinese characteristics”.*

Both approaches had their pros and cons. The advocates of the shock therapy approach claimed that the required measures for the transition to open economy standards are interdependent, mutually supportive and have an interactive character and thus, they cannot be implemented by any means other than simultaneously (Marangos, 2002). An effective price system, for example, cannot be achieved without currency convertibility. The latter, in turn, requires the opening of the market to international competition, which also requires a certain level of restructuring. In addition to this, the rapid implementation of the required measures is believed to have some other benefits that are related to the prevention of the formation of special interest groups, who could take advantage of the gradual approach (Aslund, 1997). When issues like distorted prices and entry barriers are being maintained for a long time, the results could potentially lead to: speculation, state diversion and/or corruption. Regarding the painful social costs of the quick reform process, there were opinions that these were exaggerated (Lipton and Sachs, 1992; Woo, 1994)

On the other hand, gradualism contained recommendations for softening the initial shocks. The main arguments in favor of gradualism were about the structural changes and the transition benefits. According to the gradualism supporters (Koves 1992, Abel and Bonin 1992, Minassian 1994), structural changes require time, in order to be implemented successfully, without an unnecessary rush that would probably lead to mistakes and wrong choices. It was argued that rapid privatization of public enterprises could initiate a massive wave of job losses that could in turn create public discontent, if not unrest. Moreover, if measures like privatization, for example, were carried out quickly, there was always the danger that certain people or groups of people would try to take advantage of the rapid change, in order to promote their personal interests. A sudden trade liberalization and opening of the market would, it was argued, in all

likelihood lead to several domestic firms and entrepreneurs ceasing their activities, owing to their inability to grasp, adopt and adjust to open market competition's standards. Therefore, what the gradualists suggested was that the nature itself of the proposed measures dictated that these had to be applied incrementally. Regarding the benefits of the shock therapy (quick shock and quick recovery), the gradualists argued that the social cost would be too great compared to the corresponding benefits of a rapid adjustment. The supporters of the other side rejected both these arguments, by stating that, despite the fact that the structural changes indeed needed time, their success depended heavily on quick stabilization. Social costs could be equally heavy in both cases, according to the supporters of quick implementation. (Winiecky, 1993)

Kazakevitch and Smyth (2005) studied the transition conditions for China and Russia. China is generally considered to be the most representative case of gradual transition. Privatization has been very limited, full democratization has not taken place and the creation of joint ventures has been the most common method for reforming state-owned enterprises. Contrary to this, the Russian case, according to these authors, is a typical example of the application of shock therapy. This has included simultaneous: rapid industrial privatizations, price liberalization and democratic reforms to the political system. The general view regarding the consequences of the developments is that the Chinese way has been more successful and far less painful. The authors, however, approached the whole issue in a different way. They provided evidence that the shock therapy in Russia was not sufficient to produce substantial marketization. Moreover, they also showed that apart from the initial rapid shock in Russia, the reforms were neither consistent nor rapid. Contrary to Russia, China quickly achieved extensive marketization, mainly because of their abandonment of collective farming in 1980s and the introduction of the household contract system. The political instability in Russia deterred much foreign investment, whereas in China the stability combined with the availability of cheap labor brought large amounts of overseas investment. Finally, Chinese market reforms led to a decrease in governmental intervention, which still remains high in the case of Russia.

Woo (1994) compared the economies of Poland, China and Russia, in terms of their transition progress and methods and posited that these cases are difficult to compare on equal terms, regarding the success of the transition method which was adopted. China's

growth, which was seen as a success in the gradual approach, was argued to be a result of the movement of agricultural labor (in excess) into industry. Contrary to this, the fall in growth in countries like Poland and Russia, was the result of the closing of several state industrial firms, as it was uneconomic to keep subsidizing them, without their being productive and competitive.

Despite the advantages and disadvantages of each approach, the reasons for choosing between the two methods were solely political. The rapid implementation programs demonstrated a will for breaking completely the ties with the past. Those who supported the shock therapy method also argued that there would be no alternative route to the desired situation. Moreover, the adoption of shock therapy in several cases was considered to be a matter of “government credibility” towards third parties, e.g. the World Bank and the IMF. So despite the fact that many countries were actually following a rather gradualist approach, officially they were declaring that their policy was a quick transition to open market standards. Such an example was the case of Hungary, which was always declaring that it was following a quick transition process, despite the fact that it, at least initially, adopted a gradualist approach (Csaba, 1995).

### ***3.3.4 Transition measures impact on incoming foreign investments***

The measures, policies and economic directions described so far were aiming at the transformation of the transition economies so that they would be able to adjust to the international economic standards and compete with the rest of the economies that had adopted the open market standards and practices. It is necessary to examine what exactly this meant in terms of FDI willing to enter the transition economies.

The implementation of new price policies aiming at the reduction of subsidies to consumer and producer prices while also the prices fixing deregulation certainly wiped off certain advantages of domestic firms towards foreign counterparts.

In the same line, inflation controlling measures based mainly on keeping wages low provided strong investment incentives to resource seeking MNEs. Foreign trade liberalization measures contributed further to the elimination of a series of obstacles that

could pose difficulties in the operation of MNEs and especially those aiming at the exploitation of domestic resources (natural and labor related) and the improvement by exports of their international trade position. Getting to state monopolies dismantling and privatization process initiation, the situation formed was favoring foreign firms which entered new virgin markets with financial strength which was difficulty opposed by domestic firms. Creation of flexible labor market served undoubtedly the interests of investors seeking cost reduction opportunities.

Finally the reform of the banking system which included stricter financing rules and adoption of capital adequacy standards (Basel Conventions) made access to finance for a large proportion of domestic firms a difficult, if not impossible, task. At the same time foreign firms were present in the transition economies as entities with secured finance to compete with domestic firms which lacked financial support in most of the cases.

Apart from the essence of the measures and their impact on incoming foreign investments, another issue that may have a significant influence on FDIs was the measures implementation speed. Most of the measures were radically changing both the structure and the ethics of domestic markets in a manner characterized by the presence of extremely greedy and hard competition forces. A quick adoption and implementation of the measures would cause a tremendous shock in the market, eliminating a large part of the domestic market members, leaving by this way quickly vital market space for new entrants. Contrary to that, a slow implementation of the necessary changes would make several business entities to attempt a gradual adjustment. At the same time such policies would possibly reduce a large amount of foreign investors due to signaling to new entrants the information that the field is not totally free for them. Therefore it is expected that gradual approach would prevent mass entrance of foreign investors by keeping at least up to adjustment some of the domestic firms' competitive advantages.

Therefore, both the measures themselves and their implementation speed had rather an FDI and MNE enhancing and encouraging role. The question that arises at this point is whether this FDI and MNE encouragement and enhancement was the prior mission of the overall reform process, being actually the translation of the general term “transition towards open economy standards”.

As it was stated in section 2.9, MNEs move far beyond the limits of simple business units and they are direct negotiators with states, country groupings and international organizations, which provides them with means of influencing multiple situations in global level. In this context, Marangos (2004) states that the whole transition process could be seen as having been forced upon transition economies, as many of them had to adopt the shock therapy method, in order to secure funding from the IMF, the World Bank and some large economies. These hard conditions actually left several transition countries with no real choice. Gowan (1995) confirms this in the case of Romania, in which IMF and World Bank froze financing towards the country, because the privatization strategy adopted limited foreign ownership. Such actions could imply that International Organizations or large countries that promote certain policies may actually promote exploitation conditions for large MNEs, as Stiglitz (2001) has also stated.

The overall assessment of the transition reforms implies that these might have had an FDI enhancing role. Despite the indications that there might be some sort of backstage promotion of certain policies in the new transition markets, FDI enhancing alone cannot be considered as harmful, especially when one of the transition scopes was the creation of appropriate conditions in order to attract foreign capital, which in turn would trigger through related spillovers domestic investments. However, now after two decades from the transition process initiation, the positive role of foreign capital in stimulating domestic investments is hardly verified. Mileva (2008) based on empirical evidence from 11 transition countries failed to find significant relations between foreign capital and domestic investments, implying that these had few benefits for the domestic economies in terms of investment enhancement.

### ***3.4 Conclusions***

This chapter has outlined a series of issues related to the transition countries, which the research will elaborate upon in the following empirical chapters. The analysis has presented basic geographical and demographical data for the transition countries and has highlighted some of their geographic particularities, like the existence of colonial links and EU membership perspectives. The focus of the chapter has mainly been on the transition process, as it has been the unique phenomenon of the mass abandonment of a

prevailing policy concept and ideology, namely socialism, towards the paradigm of the so-called Western and developed economies. The analysis has demonstrated the main tenets of the methods that were followed. The gradual approach entailed a relatively slow process, whereas shock therapy was extremely radical, promising quick adjustments to the new standards and quick recovery of the economy, in order to face the international market challenges. Despite the fact that there have been success stories for both approaches, the gradual approach appears to have had the advantage of minimizing social cost. However, the majority of the countries of the sample, especially the European ones, underwent shock therapy, owing to their desire for rapid transformation. Transition measures dictated by large organizations like IMF and World Bank were aiming at quickly transforming transition economies into open market economies.

The vast majority of the reform process measures were all found to be promoting and creating favoring conditions for incoming foreign investments, while at the same time posing unprecedented conditions for domestic firms. The implementation of these measures in the context of shock therapy approach has created doubts regarding their real objectives, that is, whether these were aiming at improving market transition or simply favoring MNEs coming in these virgin markets.



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## ***CHAPTER 4 FDI features in the Business Enterprise Environment Performance Surveys***

### ***4.1 Introduction***

The present chapter is the first empirical chapter of the thesis and its primary aim is to research for FDI distinctive features in the transition countries, that is, the characteristics of the foreign firms that have decided to invest in the transition countries. Therefore, the present chapter is merely focusing onto FDIs already present in the countries of interest. The chapter examines primarily FDI features related or interacting with host country's institutions. Additionally to that, it highlights foreign investments features from the analysis of which, useful conclusions can be reached regarding the results and the scope of the transition process reforms, which were described in the previous chapter.

The chapter is structured as follows. Section 4.2 contains the theoretical literature. Section 4.3 describes the Business Enterprise Environment Performance Surveys in three subsections. Section 4.3.1 describes the structure and generation of the surveys, whilst Section 4.3.2 makes an extended description of the Corruption indices used, their subjectivity and suitability. Section 4.3.3 presents the use of the BEEPS by its generators. Section 4.4 presents the developed empirical models and in two subsections 4.4.1 and 4.4.2 describes the variables and the econometrics issues related to the models developed, respectively. Section 4.5 presents and discusses the empirical findings, while Section 4.6 concludes.

## ***4.2 Literature Review***

FDI features is a wide notion as it involves a series of other variables referring to FDI incentives, priorities, orientations, preferences, concerns, competitive advantages and interactions with other entities and institutions, while also with the surrounding business environment.

Market orientation is certainly one of the most basic FDI features. Some FDI take place mainly in order to exploit favorable exporting conditions. Johnson (2006) investigated FDI flows in eight high performing East Asian countries during 1980 - 2003 and found them highly and positively correlated with host countries' exports. Yasar and Morrison (2007) based also on BEEPS 1999, focused on five transition countries and found empirically that FDI were significantly export oriented. Bilsen and Maldegem (1999), using firm level data from 450 enterprises in Russia and Ukraine, found export specialization of FDI firms, too. However, other studies demonstrate different attitudes. Sharma (2000) used FDI flows annual data from 1970 to 1998 for the Indian economy to investigate whether these were correlated with the country's exports over the same time period. The results outlined an insignificant relation, although positive.

In the same context of orientation, FDI sector preferences are also important and recently a worldwide tendency of MNEs towards service sector is noticed, (UNCTAD 2003), which is met mainly among developed and rapidly developing countries. Service industries were generally neglected under central planning regime, which emphasized more on manufacturing as economic development's main determinant, while classifying tertiary sector as unproductive (Eschenbach and Hoekman 2006). Low service levels were reflected in transport bottlenecks, poor telecommunication quality, lack of financial intermediation, and much lower employment in services than OECD countries (Bicanic and Skreb 1991). Many of today's critical services simply did not exist, e.g. design, advertising, packaging, distribution, logistics, management, after sales services, etc. Due to the virginity of the specific market, it is expected that FDI would be particularly active in these sectors.

The geographical FDI preferences can also fit within FDI orientation features, revealing deeper incentives and business aims (Yeyati et al, 2003; Blomstrom and Kokko, 1997; Stein and Daude, 2001).

Getting to business performance and interactions, the primary interest lies on whether FDI firms perform better than domestic firms and the literature provides some insights on that. Yasar and Morrison (2007) used BEEPS 1999 database for 5 transition countries (Poland, Moldova, Tadjikistan, Uzbekistan and the Kyrgyz Republic) and showed that FDI firms were significantly better performers than domestic ones. The reasons for that could be traced in FDI's competitive advantages. These could be related to FDI's contribution to employment of highly skilled personnel, to production increases and technology diffusion (Borezstein et al, 1995). However, the empirical relevant literature includes studies challenging this predominant view (Aitken and Harrison 1999, Blomstrom and Kokko 1998) stating that FDI's rarely had a significant impact on these issues. Another competitive advantage could be FDI's access to finance sources. MNEs through their FDI enter markets having secured financial sources, whereas domestic firms struggle to meet the new stricter financing rules posed by transition measures, which usually results to having domestic firms pushed out of market and to the emergence of oligopolistic patterns.

In the same context of advantages and with regard to the relation between FDI's' home and host countries, which has been discussed in section 2.9, it is important to include in the study of FDI features, their ability to form influence groups. Hillman, Zardkoohi and Bierman (1999) demonstrated, through their empirical analysis, the beneficial role of government linkages for a series of firms, stating that the development of these linkages is actually an important way of dealing with uncertainty in a business environment. In a business environment such as the transition one, it is expected that lobbying will be a significant FDI feature. Campos and Giovannoni (2007) used also the BEEPS 1999 database in order to study lobbying determinants and lobbying relation with corruption in the transition economies. The authors found a similar significant relationship between foreign firms and lobbying. Their results showed that lobbying is related to firm's size and political stability, while also that lobbying and corruption were

substitutes. Finally they showed that lobbying is a much more effective instrument for political influence than corruption, even in less developed countries.

However, lobbying is not the unique way of achieving results. In this point and regarding FDI features related to interactions with the overall surrounding environment, the interest lies also to how foreign firms handle phenomena of institutional malfunctions, which in several cases appear as corruption. Hellman, Jones and Kaufmann (2000) describe the high intensity of the whole nexus of corruption in the transition economies ranging from influence to Grand Corruption (State Capture). Regarding corruption related FDI features, the relevant literature is divided into those who support the idea that corruption phenomena annoy foreign investors and those who contend that it does not and sometimes even encourages them. Smarzynska and Wei (2000) suggested that the existence of corruption leads to the requirement of using specific entry modes into the market when local agents are involved and incoming FDI's possess sophisticated know how which is in risk being leaked to corrupt agents and then to competitors. Hakkala et al (2005), on the other side of the argument, suggested that the impact of corruption on FDI depends on its goal, that is, whether the intention is to sell domestically or to export. In the first case, corruption acts as a deterrent, whereas in the second as a helpful tool. In the same vein, Kolstand and Tondel (2002) found an FDI encouraging role for corruption, in their study of 61 developing countries, covering the period 1989-2000. Egger and Winner (2006) distinguished two forms of corruption: grabbing hand corruption and helping hand corruption, where the former has a clearly harmful impact on firms and the latter acts as a kind of lubricant that eases the pre-existing government failures. Their analysis used panel-data analysis for a sample of OECD and non-OECD countries, covering the period 1983 and 1999, and demonstrated that the helping hand effects are outweighed by the grabbing hand effects. However, the analysis showed a regional differentiation in the results, with corruption playing a significant role in the FDI flows of the OECD countries, whereas among the non-OECD having an insignificant impact on foreign investments.

Finally, another FDI feature that the research could shed some light on is the issue of taxation. Taxation is a high priority issue for the majority of MNEs and in many cases it is considered as an FDI attraction tool (Agostini 2007, Hines 1996). As it was stated in

Chapter 3, taxation reforms were also among the transition changes imposed and therefore useful results could be extracted regarding taxation's impact on FDI and whether foreign firms were differentiated from domestic firms on this issue.

The above research issues will be analyzed using a series of similar surveys that took place in 1999, 2002 and 2005 for the transition countries, together with another similar survey carried out in 2000 covering all the countries of the world. The fact that these surveys regarding the transition countries are employed three times allows for the opportunity to examine the research issues over time.

### ***4.3 The Business Enterprise Environment Performance Surveys (BEEPS)***

#### ***4.3.1 The Survey Structure and Generation***

Business Enterprise Environment Performance Survey (BEEPS) was the result of a joint attempt of World Bank and European Bank for Reconstruction and Development to assess the quality of the transition countries business environment, on the basis of the firms' experiences and practices. It is part of the World Business Environment Survey carried out by the World Bank, which will be used also in the context of the present chapter as a comparing basis for BEEPS empirical analysis results. BEEPS was carried out in three rounds (1999, 2002 and 2005) and was conducted through face-to-face interviews with firm managers or owners during site visits in 27 (22 in 1999 round) countries. The countries and the number of participating firms are listed in Table 4.1.

The sample included both fully domestic firms and MNEs (multinational enterprises). The number of the FDI firms (for a definition see FDI variable sub-section below) in the sample is displayed in the following table:

*Table 4.1: Participating countries and firms in the Business Enterprise Environment Performance Surveys (BEEPS 1999, 2002, 2005)*

	<b>BEEPS 1999</b>		<b>BEEPS 2002</b>		<b>BEEPS 2005</b>	
<b>Country</b>	<b>Firms</b>	<b>FDIs</b>	<b>Firms</b>	<b>FDIs</b>	<b>Firms</b>	<b>FDIs</b>
Albania	160	21	170	16	204	9
Armenia	125	2	171	17	351	4
Azerbaijan	137	13	170	13	350	14
Belarus	132	15	250	38	325	18
Bosnia	-	-	182	6	200	8
Bulgaria	130	17	250	25	300	23
Croatia	127	17	187	12	236	14
Czech Rep.	149	33	268	29	343	23
Estonia	132	26	170	25	219	27
FYROM	-	-	170	7	200	12
Georgia	129	18	174	24	200	18
Hungary	147	27	250	49	610	27
Kazakhstan	147	27	250	20	585	6
Kyrgyzstan	132	15	173	14	202	17
Latvia	166	41	176	24	205	12
Lithuania	112	6	200	16	205	9
Moldova	139	16	174	21	350	9
Poland	246	40	500	62	975	41
Romania	125	20	255	25	600	14
Russia	552	37	506	51	599	16
Serbia and Montenegro	-	-	250	16	300	19
Slovakia	138	15	170	22	220	12
Slovenia	125	17	188	17	223	12
Tajikistan	-	-	176	6	200	6
Ukraine	247	30	463	48	594	43
Uzbekistan	126	18	260	35	300	32

The questionnaires were separated into two sections. The first, which was the “Screener Part”, contained mainly questions related to: the kind of the firm, its management, the sector in which it operated, its size, the structure of the ownership, whether it was a domestic firm or a foreign firm, etc. The second section, which was the main questionnaire, was further separated into two sub-sections. The first section could be characterized as macroeconomic and examined issues related to the efficiency of government services and policies. The second had a more microeconomic character and examined issues, like: the amount of money that firms paid to government officials unofficially, the trend of their sales, investments, financing, payments, etc.

In order to have a uniform, representative and objective approach, the surveys adopted some general guidelines/quotas for the selection of the firms that would be interviewed. These guidelines are listed below:

- The number of manufacturing and service firms was determined according to their contribution to GDP with a 15% minimum of each
- 10%-15% of the selected firms were having less than 50 employees, while another 10%- 15% of them had more than 200 employees
- 10%-15% of the selected firms were located near towns with a population of less than 50,000
- 10%-15% of the selected firms were partly owned by foreign firms
- 10%-15% of the selected firms were exporting more than 20% of their products
- 20% of the selected firms belonged to the state sector

As it was mentioned earlier, a similar survey was applied also in global level (WBES). The countries with their firms’ sample participating in the WBES survey are listed in the following table:

Table 4.2: Countries and firms participating in the WBES survey

OECD W. Europe / N. America		Latin American & Caribbean		Eastern Europe & Central Asia		Middle East & Africa	
UK	100	Argentina	100	Albania	100	West Bank Gaza	93
France	100	Brazil	201	Armenia	125	Botswana	101
Germany	100	Chile	100	Azerbaijan	128	Cameroon	57
Spain	100	Belice	50	Belarus	125	CDI	97
Portugal	100	Bolivia	100	Bosnia – Herzegovina	110	Egypt	101
Italy	100	Colombia	101	Bulgaria	125	Ethiopia	105
Sweden	100	Costa Rica	100	Croatia	127	Ghana	119
Canada	100	Dominican Rep.	111	Czech Republic	137	Kenya	113
USA	100	Ecuador	100	Estonia	132	Madagascar	116
		El Salvador	104	Georgia	129	Malawi	55
		Guatemala	106	Hungary	129	Namibia	95
<b>East Asia</b>		Haiti	103	Kazakhstan	127	Nigeria	93
China	101	Honduras	100	Kyrgyzstan	125	Senegal	124
Malaysia	100	Mexico	100	Lithuania	112	South Africa	121
Indonesia	100	Nicaragua	100	Moldova	125	Tanzania	83
Singapore	100	Panama	100	Poland	225	Tunisia	52
Philippines	100	Peru	100	Romania	125	Uganda	137
Thailand	422	Trinidad & Tobago	100	Russia	525	Zambia	84
Cambodia	326	Uruguay	100	Slovakia	119	Zimbabwe	129
		Venezuela	100	Slovenia	125		
<b>South Asia</b>				Turkey	100		
India	210			Ukraine	225		
Bangladesh	50			Uzbekistan	125		
Pakistan	103						

### 4.3.2 The Corruption Indices in BEEPS, their subjectivity and suitability

Corruption, being one of the primary issues of analysis in this chapter, is a complex phenomenon of social malfunctioning with several aspects as it appears in many different forms and in many different levels. As such, it is by nature something quantified and measured with difficulty. In the relevant literature there are corruption indices that display various aspects of the phenomenon. According to Hellman et al (2000)<sup>7</sup>, most of the Corruption indices rely on the subjective views of outsiders, experts or country analysts, while corruption is usually limited to bribery, which leads usually to results which are highly subjective. BEEPS according to the same authors,

<sup>7</sup> Joel Hellman, Geraint Jones, Daniel Kaufmann and Mark Schankerman were the people in charge for the implementation of BEEPS 1999



has characteristics that ensure higher reliability. Questions in BEEPS refer mainly to firms' direct experience and therefore the risk of subjective comparison across countries is limited and the use of quantified "cardinal estimates" of the corruption symptoms (e.g. percentage of revenues paid in bribes) make the BEEPS indicators far less subjective than other indicators.

A usual risk when dealing with surveys is the "country perception bias", which is described as the tendency of a respondent to rate more or less severely a situation than a truly observer would do. When countries are involved this is met in the form of systematic over- or under-estimation of problems like corruption from respondents regarding their own home country. There are plenty of factors that can cause the "country perception bias", such as different national character, different cultures, openness of a society or even the prevalence of crisis conditions.

In BEEPS in order to investigate the existence of such bias a test was carried out by its authors (mentioned previously) based on the examination of the relationship between the respondents' perception of certain absolutely measurable problems in the economy and the objective measures of these problems. The external measures that were chosen were the exchange rate variability (standard deviation of the real exchange rate) and the telephone infrastructure (number of telephone lines per capita). The questions asked were to rate the overall quality and efficiency of the telephone services delivered and how problematic was the exchange rate for the operation and growth of the respondents business (the latter form of question was used in the survey to create a corruption index). Both available answers were given in the form of scales. From the correlation analysis of the results, the hypothesis that BEEPS was also suffering from the country perception bias was rejected.

Apart from the above, the fact that the focus of the survey is on firms adds on the issue of limited subjectivity. As Knack (2007) states referring to BEEPS and the potential subjectivity of its corruption indices, "*managers of business firms may be viewed as a special category of 'well-informed persons'. The distinction nevertheless is important. Questions in the enterprise surveys place a greater emphasis on experience, and less on perceptions.*"

Another important parameter is also the role of the respondents' nature in a survey. When a survey focuses on households in order to investigate corruption issues, then its results will display the corrupt behaviors encountered by users of government services. Therefore, what will be measured is mainly administrative corruption. When the focus of a survey for corruption is on firms, the corruption that will be measured will include also administrative corruption but will also include aspects of state capture especially when there are questions that refer to the influence over the content of laws and regulations. But even the focus on firms' responds leaves some aspects of corruption out of the survey range like the corruption transactions that occur entirely within the state (e.g. when politicians bribe bureaucrats, when funds are illegally diverted, etc). The question about the suitability of an index lies in the context of the research questions set and in the present analysis the context is set by the relation of the FDI firms with the public officials in the transition countries. Therefore, BEEPS indicators are able to provide the necessary information for the research needs.

Other corruption indicators provided by various organizations are the result of aggregation of several other corruption indices. The method of aggregation has its pros and cons. It is undoubtedly limiting the subjectivity which is inherently found in the results of a survey. However, this comes at the cost of mixing various aspects of corruption which may result to an indicator less conceptually precise and with increased uncertainty (Knack, 2007), which is something that cannot happen with BEEPS, in which all the corruption indicators reflect the corrupt interactions between firms and officials.

#### ***4.3.3 Use of the BEEPS Data Base by its Generators***

The basis for the empirical analysis presented in this chapter was the article of Hellman et al (2002), which made use of BEEPS 1999 data and which is analyzed below in detail. The article's aim was to research whether foreign investors import higher governance standards in the transition economies. For the particular study the authors characterized as FDI any firm in which a foreign registered firm had an ownership stake. The study focused mainly on two types of corruption. These were: i) state capture

which was defined as the extent to which firms make illicit payments to officials in order to influence the formation of laws, rules, regulations or decrees and ii) public procurement kickbacks which was defined as the extent to which firms make illicit payments to public officials to secure public procurement contracts. Additionally, the study made use also of another Corruption index, the percentage of revenues paid in bribes.

The first empirical test of FDI attitude towards corruption which was carried out by Hellman et al (2002) tried to correlate cumulative FDI flows in the transition countries with the three corruption indices mentioned before, by carrying out a series of regressions in which apart from corruption, variables controlling for the existence of natural resources and unreformed regimes were included. The results showed that FDIs were negatively and significantly correlated with the percentage of revenues paid in bribes and state capture, while insignificantly correlated with public procurement kickbacks.

The next empirical part focused on FDIs that invested in the transition countries and their features were described in the firms' responses. In this part FDIs did not appear in the form of flows or stocks but through dummy variables that distinguish them from domestic firms. Therefore, the analysis at this point gained a comparative character between domestic and FDI firms. From a primary statistical analysis the authors demonstrated an interesting pattern having FDIs and local firms paying similar percentages of their revenues to bribes and with FDIs more likely to be involved in kickback payments and state capture activities, than their domestic counterparts. The empirical analysis continued with the formation of three empirical models in which the dependent variables were the three Corruption indices mentioned previously. Apart from the revenues share paid in bribes which was a quantified variable, the rest of the corruption indices were all qualitative and scaled. State Capture and Kickback payments formed two dummy variables, which actually distinguished State Captor Firms and Firms that pay kickback payments from those that do not. The model controlled for FDIs (dummy variable), firm's size, its origin (state owned, privatized or new) and country fixed effects. The method applied was probit analysis. The results demonstrated that FDI firms were not differentiated from domestic in terms of revenue shares paid to

bribes and to kickback payments. However in terms of State Capture, FDI firms appeared to be more involved in similar practices than domestic firms. Regarding this view of FDI firms appearing to be involved in Grand Corruption, the authors stated that foreign investors might respond that this “close link” to State Capture is due to a discriminatory targeting of foreign investors for corrupt payments on the part of public officials in the host countries. However, the authors themselves reject this hypothesis because:

1. If FDI firms were indeed targeted then their total bribes paid would exceed those paid by domestic firms, which is something not verified by the results
2. FDI firms should have easier exit options than domestic firms preventing them from being easy targets for public officials
3. Engaging in State Capture is associated with certain benefits for the FDI firms. The authors by carrying out empirical analysis with models having as dependent variables the sales growth find out that FDI State Captors did have significantly increased sales in comparison with domestic firms. Therefore if FDI firms were indeed targeted, then they must have been well rewarded for this “targeting”

The analysis on BEEPS concluded with the study of the FDI impact of international agreements against corruption like OECD Convention (Convention on Combating Bribery of Foreign Public Officials in International Business Transactions) or legislation like Foreign Corrupt Practice Act in US. The hypothesis tested was that legislation constrained the behavior of foreign investors. However this hypothesis was not supported by the results of the empirical analysis, in which the dependent variables were the three corruption variables (share of revenues paid in bribes, State Capture and Kickback Payments) and controlled for firm size, ownership (state, privatized or new), FDI origin (dummy for FCPA) and OECD ratifier or signatory.

The results showed that none of the variables that refer either to OECD convention or FCPA was significant, that is, the existence of such legislation or agreements did not have any significant impact on foreign firms' attitude that have decided to invest in the transition countries.

#### ***4.4 The Empirical Model***

The article of Helman et al (2002) was the platform on which the empirical analysis of this chapter was based. The basic guidelines that were adopted from the particular article were:

1. The creation of probit empirical models with qualitative dependent variables and more specifically a binary dependent variable that would enable comparative analysis between domestic firms and FDIs
2. The use of two of the three of the corruption variables

The above mentioned guidelines would be applied in all BEEPS and WBES rounds.

The analysis that was applied embodied the following expansions and differentiations:

1. The empirical analysis was applied to all three BEEPS rounds and the WBES round in order to obtain a more consistent view in terms of universality and time
2. Corruption indices were enriched with two more variables, since the kickback corruption index will not be used as it is more applied to firms that undertake public procurement projects and as such limit FDI range. The additional corruption variables were related to the impact of corruption as an obstacle for businesses, while also to the frequency of illegal payments
3. FDI firms were characterized by those firms in which 10% of their shares belong to a foreign registered firm, in order to follow a uniform rule throughout the dissertation and have comparable results with the rest of the databases used in the next empirical chapters

Additionally, the results would be separated in three different geographical regions, Balkans, Central Europe and Ex-Soviet Countries, in order to control for regional differentiations, something that was not provisioned by the study of Hellman et al (2002).

Based on this theoretical basis the empirical model that was constructed for the three BEEPS rounds is given below:

$$FDI = Constant + a FINANCEOBS + b TAXOBS + c NEWLINE + d EXPORTER + e SERVICES + f SKILLED LABOUR + g SALES CHANGE + h LOBBYING + g CORRUPTION INDEX (COR1, COR2, COR3, STATECAPTURE).$$

For the case of WBES the corresponding model was similar but a bit altered due to the lack of some variables in the particular survey. The model for WBES is given below:

$$FDI = Constant + a FINANCEOBS + b TAXOBS + c EXPORTER + d SERVICES + e SALES CHANGE + f CORRUPTION INDEX (COR1, COR2, COR3, STATECAPTURE).$$

, where:

FDI = Variable which distinguishes foreign direct investors from domestic firms

FINANCEOBS = Financing as a problem

TAXOBS = Taxation and Regulations as a problem

NEWLINE = Operation of a new major production line (not existing in WBES))

EXPORTER = Dummy variable for the Exporting Firms

SERVICES = Dummy Variable for the Service Sector Firms

SKILLED LABOUR = Variable for the percentage of skilled workers (not existing in WBES)

SALES CHANGE = Percentage of Sales Change during the last three years

LOBBYING = Dummy Variable for Lobbying firms (not existing in WBES)

CORRUPTION INDEX = The Four Corruption Indices used from BEEPS (described below in the variables table)

#### 4.4.1 The Variables

The following table displays all variables that are used in the empirical analysis of the three BEEPS rounds and WBES. Every cell of the table contains the database reference number of the question from which the particular variable is created, together with the exact question and the range of its answers.

Table 4.3 BEEPS and WBES variables and corresponding questions

Variable	BEEPS 1999	BEEPS 2002	BEEPS 2005	WBES (2000)
FDI	S7 10% and above foreign ownership	S4c 10% and above foreign ownership	S5 10% and above foreign ownership	Q 51 10% and above foreign ownership
Finance Obstacles	Q 49 c 52 How problematic is Access to Finance for the operation and growth of your business 1= No Obstacle 4 = Major Obstacle	Q 80 a How problematic is access to finance for the operation and growth of your business? 1= No Obstacle 4 = Major Obstacle	Q 54 a How problematic is access to finance for the operation and growth of your business? 1= No Obstacle 4 = Major Obstacle	Q 88 How problematic is access to finance for the operation and growth of your business? 1= No Obstacle 4 = Major Obstacle
Taxation Obstacles	Q 49 c 54 How problematic is taxation for the operation and growth of your business. 1= No Obstacle, 4 = Major Obstacle	Q 80 g How problematic are tax rates for the operation and growth of your business? 1= No Obstacle, 4 = Major Obstacle	Q 54 h How problematic are tax rates for the operation and growth of your business? 1= No Obstacle, 4 = Major Obstacle	Q 8 How problematic are high taxes for the operation and growth of your business? 1= No Obstacle, 4 = Major Obstacle
New Production Lines	Q 54 c20 3 Development of a New Production line during the previous three years (1=Yes, 2=No)	Q 85a1 Development of a New Production line during the previous three years (1=Yes, 2=No)	Q 60 a Development of a New Production line during the previous three years (1=Yes, 2=No)	n/a
Exporting Firms	Q S12 Does your firm sell its products or services to customers outside the country? (1=Yes 0=No)	Q 14a Sales exported directly, sold domestically, or exported through distributor (Dummy created for those firms that export directly)	Q 7b Sales exported directly, sold domestically, or exported through distributor (Dummy created for those firms that export directly)	Q 50 Dummy for exporting firms (1=Yes, 0=No)
Service Sectors	Q S3 Organization's main area of activity (services or manufacturing)	Q 2 Percentage of sales coming from service sectors (Dummy created for those that have over 50% from service sector)	Q 2 Percentage of sales coming from service sectors (Dummy created for those that have over 50% from service sector)	Q 45 Dummy for Service Sector (1 =Yes, 0=No)
Skilled Labor	Q 52a "Given your firm's current level of output and existing capital stock, how does the current level of skilled workers in your firm compare with the desired level in your firm?" The answers were on a scale of 1 to 6. 1 = too high by more than 20%, 2 = too high by 10 – 20%, 3 = too high by 5 – 10%, 4 = employment level about right, 5 = employment level too low	Q 99 a Since 1998, how has the share of skilled workers changed (increased/decreased)? (Dummy variable created 1=Yes, 2= No)	Q 68 c What percentage of your current, permanent, full-time workers are skilled workers? What was the percentage 36 months ago? (Dummy variable created for increased percentage of skilled workers during the last 36 months)	n/a
Sales Change	Q 50 Have your company's sales changed in real terms over the last three years and if yes in what percentage	Q 81 Have your company's sales changed in real terms over the last three years and if yes in what percentage	Q 55 Have your company's sales changed in real terms over the last three years and if yes in what percentage	Q 104-105 Have your company's sales changed in real terms over the last three years and if yes in what percentage
Lobbying	Q 32 Participation in a lobbying group 1=Yes, 0=No	Q51 a Participation in a lobbying group 1=Yes, 0=No	Q 36 a Participation in a lobbying group 1=Yes, 0=No	-
COR -1	Q 49 c59 How problematic is corruption for the	Q 80 p How problematic is corruption for the	Q 54 q How problematic is corruption for the	Q 96 How problematic is corruption for the

Variable	BEEPS 1999	BEEPS 2002	BEEPS 2005	WBES (2000)
	operation and the growth of your business 1 = No obstacle, 4 = Major Obstacle	operation and the growth of your business 1 = No obstacle, 4 = Major Obstacle	operation and the growth of your business 1 = No obstacle, 4 = Major Obstacle	operation and the growth of your business 1 = No obstacle, 4 = Major Obstacle
COR-2	Q 27 c3 On average what percent of revenues do firms like yours typically pay per annum in unofficial payments to public officials 1 = 0% 2 = Less than 1% 3 = 1-1.99% 4 = 2 – 9.99% 5 = 10 – 12% 6 = 13 – 25% 7 = Over 25%	Q 55 On average, what percent of total annual sales do firms like yours typically pay in unofficial payments to public officials? (Not a scaled answer)	Q 40 On average, what percent of total annual sales do firms like yours typically pay in unofficial payments to public officials? (Not a scaled answer)	Q 150 Percentage of sales paid in bribes
COR-3	Q 25 c19 It is common for firms in my line of business to have to pay some irregular “additional payments” to get things done 1 = Always, 6 = Never	Q 54 a It is common for firms in my line of business to have to pay some irregular “additional payments/gifts” to get things done “with regard to customs, taxes, licenses, regulations, services, etc 1= Never, 6 = Always	Q 39 a It is common for firms in my line of business to have to pay some irregular “additional payments/gifts” to get things done “with regard to customs, taxes, licenses, regulations, services, etc 1= Never, 6 = Always	Q 97 It is common for firms in my line of business to have to pay some irregular “additional payments/gifts” to get things done “with regard to customs, taxes, licenses, regulations, services, etc 1= Always, 6 = Never
STATE CAPTURE	Q28 c30 How often do firms like yours nowadays need to make extra, unofficial payments to public officials to influence the content of new laws, decrees and regulations? 1 = Always, 6 = Never	Q 56 j Thinking of unofficial payments that a firm like yours would make in a given year, could you please tell me how often you would make payments to influence the content of new legislation, rules, decrees, etc. 1= Never, 6 = Always	Q 41 j How often you would make unofficial payments to influence the content of new legislation, rules, decrees, etc. 1= Never, 6 = Always	Q 178 Frequency of Payments to influence the content of laws 1 = Always, 6 = Never

#### 4.4.2 Econometric Issues – Omitted variables (misspecification) testing

The dependent variable is a binary (or bivariate) one, which takes the value of 1 when the firm is classified as a case of FDI and 0 when it is a domestic firm. For the analysis of such models, the most appropriate treatment is the use of a bivariate econometric technique. Despite the fact that the basic equation looks like a typical regression equation, the philosophy behind probit analysis is completely different. In the binary equation that was presented, the conditional expectation of FDI, given the rest of the variables on the right hand side of the equation, can be interpreted as the conditional probability that the firm is an FDI case, given some specific values of the regressor



variables (e.g. the firm is a service sector firm, or it does face taxation or corruption as a problem).

Three different methods of analysis are suggested by econometric theory for handling binary models: The linear probability method, the logit method and the probit method. The linear probability method, in general, is considered to have some problems, like: heteroskedasticity, the possibility of the dependent variable lying outside to the range 0 - 1 and normality problems. Despite the fact that these problems are not that serious, the other two methods are more commonly used in the literature. In the context of the present analysis, both the probit and the logit methods were tested and the results were very close to each other. For this reason and in order to reduce the amount of numerical data provided, only the probit method results are presented. This particular method will be applied in all models in this chapter.

In the qualitative models, as Gujarati (2003) has mentioned, the  $R^2$  values are usually of limited importance. What is more important are the z-statistics (an equivalent of the t-statistics in the other regressions), the signs of the coefficients and their interpretation.

The regressions were carried out using the E-Views 5.1 computer software. The use of the Newton – Raphson method was selected and heteroskedasticity problems were faced by using the Huber-White robust covariances

The selected independent variables in the equation are unlikely to be endogenous with the dependent variable. Hellman et al (2002) in their study on BEEPS 1999 database, referring to possible endogeneity bias between certain variables, stated that because the variables were constructed from different questions in the survey the endogeneity issue could not arise. In the case of the above described model, all the variables are constructed from different questions in the survey and therefore, such problems are unlikely to exist.

An important issue for the reliability of the produced results is related to resolving issues of *misspecification*. As the empirical method adopted is the binary probit, appropriate specifications had to be applied. The developed models were tested for

misspecification by applying the Andrews test (1988a, 1988b), which is appropriate for use in probit and logit empirical models. The statistics which are displayed in the corresponding results tables show that the models did not suffer from omitted variables bias.

The correlation tables for all regressions are given in this chapter's Appendix. The maximum correlation coefficient is around 0.2-0.3, which allows for the use of all the variables in the empirical model. However, the different corruption variables were not entered into the empirical model simultaneously, in order to avoid even the slightest case of multicollinearity. The results from the regressions for the different country groupings are shown in the Appendix.

#### ***4.5 Main Findings and Interpretation of the Results***

The regression analysis reveals some common FDI characteristics in the three country groupings and in all BEEPS rounds. However this does not happen with all variables, with some of them demonstrating differentiated attitude in the three BEEPS rounds. Each variable will be examined separately with references to all three BEEPS rounds and to WBES in order to form a consistent approach in terms of time differentiation and global level correspondence.

##### ***Export Orientation***

FDIs demonstrate a strongly exporting character which is permanent both in all transition regions and in all BEEPS round. These results confirm the findings of Yasar and Morrison (2007) who reached the same conclusions using the BEEPS 1999 database for five transition countries and the results of Bilsem and Maldegen (1999) who focused on FDIs based in Russia and Ukraine and found that they were significantly related to exports. Nielsen and Pawlik (2007) focused on Polish economy and showed that exporting firms were mainly of foreign ownership and heavily relying on local availability of cheap labor. The fact that the FDIs were export oriented means that either the countries were "strategically" located, or they provided some kind of L – type advantages, which could be exploited for export purposes. Such advantages can be: the existence of specific resources, labor cost advantages or the existence of a particular

specialty. As the export orientation variable remains significant in all BEEPS rounds, the question that also arises here is related to the domestic firms' inability to improve their exporting performance. The results can be read in a way that they show that the domestic firms are unable to exploit their countries' export promoting advantages. This means that they either lack the ability to gain access to international trade networks or they are unable to produce competitive products (probably in terms of competitive quality and cost) which can be traded internationally, or both of them. This inability in turn indicates that after a decade of transition, domestic firms have not found ways to improve, which is something that can be linked and combined with the various obstacles that domestic firms face, e.g. financial obstacles, lack of international links and also inability to achieve economies of scale that are able to exploit more easily a country's advantage. Additionally, the strong presence of FDI firms in the exporting sector of a transition country has probably led to the creation of barriers, protecting their positions.

All these however, lead to some additional conclusions regarding the impact of the transition reform process. As it was discussed in Chapter 3, the imposed transition reforms included measures for trade liberalization with immediate elimination of all trade restrictions, in order to enhance host countries' trade volume. The empirical results here are certainly an indication of these measures' impact. And these results indicate that after more than a decade of transition with painful social and economic adjustment, foreign firms are significantly the main players in the export markets in these countries, while domestic firms are rather the followers, while someone would expect that the long process of "transition towards open economy standards" would at least create the same opportunities for both domestic and foreign firms. This in turn, certainly adds up to the skepticism that was expressed in Chapter 3 regarding the primary objectives of the transition process.

FDI firms in WBES survey, as in the three BEEPS rounds, emerged to be export-oriented firms, when compared to their domestic competitors. The interpretation is the same as in BEEPS cases. Foreign firms enter selected markets, in order to exploit their features that can improve their global trade position. It is remarkable that even at global

level domestic firms are again rather unable to appear as significant exporters and equal competitors with FDI firms.

### ***Financial Obstacles***

The next common FDI feature is related to finance. The particular variable is negative and significant in both all transition regions and BEEPS rounds, showing that FDI firms were unlikely to be firms facing financial access problems. These results are in line with the results of Pissarides et al (2003), who tested a sample of 216 firms from Russia and 221 firms from Bulgaria in terms of their major constraints and showed that difficult access to finance and high interest rates were the most significant ones. Bilsen and Lagae (1997) also linked the low investment levels of Polish firms with their inability to access long term finance. Bilsen and Maldegem (1999) focusing on Russia and Ukraine in order to compare domestic with foreign firms also highlighted their significant differences in terms of accessing capital sources. Similarly Falcetti et al (2003) demonstrated the low finance levels in the Balkan countries private sector and in particular those of the small and medium size enterprises (SMEs). More specifically, the ratio of total domestic credit to annual GDP at the end of 2001 was 27% for the South Eastern European countries, 22.6 % for the ex-Soviet countries and 43.2 % for the Central European countries (including Baltic countries), whilst at the same time for the Euro area, the corresponding percentage reached 108.8%. According to Falcetti, the problem of the limited access to finance was due to high risks associated with SME financing, for which banks under the new regime demanded increased collaterals, while imposing higher interest rates and shorter term maturities. Apart from that, poor credit-evaluation skills contributed further to increasing hesitance for domestic firms and risk taking. Finally, the existence of a large amount of non-performing loans granted during the previous regime contributed further to the formation of difficult financing conditions. The empirical results in the current analysis were actually expected, because in most cases FDI firms have an international presence based on strong and often varied capital sources enabling them to easily “pump out” investment and expansion-purpose capital. Thus FDI firms gain competitive advantages over their domestic competitors, who as the regression results denote, faced severe financing problems in the operation and growth of their businesses. Financing difficulties can be combined with low exporting performance, previously discussed, on behalf of domestic firms as the

inability to access finance influences always exporting activities both in terms of procedural necessities (e.g. issue of L/Cs, L/Gs) and working capital finance necessary for the manufacturing of given orders.

The fact that the variable's performance is the same throughout the three BEEPS rounds (1999 to 2005), at a time that most of institutions and open market regulations had been functioning for almost a decade after the transition initiation, means that FDIs were permanently differentiated from domestic competitors on this issue. This in turn reveals the permanent difficulties for domestic firms to gain easy access to finance, owing also to the strict constraints imposed on the newly organized banking sector (see Washington Consensus principles and transition measures in Chapter 3). Therefore, the question that arises at this point is again whether the introduced banking system reforms in the transition context, actually benefited domestic firms in the transition economies or actually kept them away from being financed and developed, while actually benefiting their foreign counterparts. As stated with the export orientation variable and being based on the fact that the survey refers to a time period more than a decade after transition initiation, someone would expect that the reformed banking system in the countries of study would be able to provide widely its services in the domestic business community. However, the view, according to the empirical results, is totally different with domestic firms being significantly kept out of financing sources. This in combination with the export orientation variable also adds up to the stream of skepticism regarding the transition reform objectives and actual impacts.

Regarding WBES global results, the results are similar to the transition countries and demonstrate a constant behavior for the particular variable both in OECD and in non-OECD countries. The findings are in line with the empirical analysis of Beck et al (2005), also based on WBES data. Their analysis highlighted limited access to finance as the major constraint for domestic firms (SMEs) in 56 countries. The study of Ayyagari et al (2006) also based on WBES survey, had identical results.

### ***Taxation***

Taxation variable demonstrates a differentiated behavior in terms of region and time. According to the results, the variable demonstrates significance in the Ex-Soviet region

in BEEPS 1999 bearing a negative sign and in the Balkans in BEEPS 2002 bearing a positive sign. In the rest of the cases the variable was always insignificant. Lack of significance denotes that on this issue FDI firms were not markedly different from domestic ones, implying possibly the lack of tax incentives towards FDI. In the significant cases, sign differences show that in the Ex-Soviet countries, FDI were significantly less annoyed by tax rates than domestic ones, while for Balkans the opposite seems to have happened. The regional differentiation in the variable's behavior is certainly an indication of tax regimes' differentiation. The findings are in line with the results of Bilsen and Maldegem (1999) study focused on Russia and Ukraine in which high taxation avoidance was not significantly differentiated among FDI and domestic firms. However, the formed image goes against the findings of a study by Grabowski (2005) on the reforms of the tax systems in transition countries. The author analyzed the trends in the taxation systems in all the transition countries; separated, as in this study, into the Balkan, Central European and the CIS countries. According to the study, taxation reforms in Russia were delayed compared to the rest of the countries and particularly those of the Central Europe. The study proceeded to state clearly that the tax incentives for foreign investors in the CIS remained very high, which is a fact that can only be verified in the BEEPS 1999 results.

In global level (WBES), taxation variable was not significant in both regions (OECD and Global) denoting the lack of differentiation between FDI and domestic firms on this issue. The negative sign in the majority of cases, in both groups, highlights a tendency, though insignificant, of not facing taxation as a problem.

In general it was expected that FDI firms would be largely differentiated from domestic firms in terms of high taxation attitude as the former have a large variety of accounting tools to face difficult taxation regimes (e.g. transfer pricing). However, even domestic firms may have also similar tools developed in their long presence under difficult conditions, which lie to issues of reduced bureaucratic quality or corruption mechanisms.

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***Labor Skills***

Another feature with uniform behavior for both all BEEPS rounds and the three transition zones is related to the variable related to FDI firm's labor skills. Regression results show that the variable is insignificant in all cases (the variable is not included in WBES). The survey's corresponding question, referred to the desired level of labor skills and its insignificance denotes that FDI firms were not differentiated in terms of labor skills from domestic firms.

The fact that FDI and domestic firms employed the same labor quality is an indication that foreign entrants in the transition countries did not demonstrate a remarkable record in terms of skill related spillover effects, which in turn could potentially advocate for FDI's beneficial impacts on host countries. Konigs (2001) studying Bulgaria, Romania and Poland based also on firm level evidence found no positive spillover effects to domestic firms, actually he found negative effects.

The results could be seen in another way, that of foreign investment sector directions. More specifically, the results indicate that foreign production in transition countries refers to either primary resources exploitation or absolutely standardized products, which in fact confirms Vernon's theory provisions that foreign investments take place when production becomes completely standardized and priority falls onto production cost minimization issues.

***Service Sector***

Tertiary sector variable changes both with time and region. In BEEPS 1999, the variable is significant and positive only for Ex-Soviet countries, while for BEEPS 2002 it is significant for Balkans and Ex-Soviet countries. In BEEPS 2005 the variable is significant only for the Balkan region. The results in general demonstrate significance only for the Balkans and the Ex-Soviet regions.

Eschenbach and Hoekman (2006) provided a view of the service sector in the transition economies (share of tertiary sector as % GDP) in 1991 and in 2003 showing that Central European countries were the ones that had the largest shares of service sector in their GDP. More specifically in 1991 Central European countries had the 40% of their GDP

coming from service sector. The corresponding percentages for Ex Soviet and Balkan countries were 20% and 30% respectively. In 2003, Central European countries percentage was 70%, Ex Soviet countries percentage was 50% and Balkan countries percentage was 55%. These figures imply that the Ex-Soviet and the Balkan service sector markets were less developed, which in turn can be combined with the empirical findings only by assuming that tertiary sector FDI's were focused on less developed service sector markets in order to exploit "virgin markets" type opportunities. This conclusion is supported by the results of Caselli and Pastrello which challenged the predominant view that the service sector was not developed in all the transition countries. The authors showed that in certain transition countries, especially the central European ones, the sector was developed.

### ***New Production Lines***

The variable referring to the creation of new production lines demonstrates a varying behavior. In BEEPS 1999 the variable was significant in the Balkan and Ex-Soviet Countries. In BEEPS 2002 the variable was not significant at all, while in BEEPS 2005, the variable was significant only in the Central European region. The results are in line with the study of Bilsen and Madegem (1999) based also on firm level data in Russia and Ukraine collected in 1997, which showed that domestic and foreign firms were not differentiated in terms of new production lines and equipment justifying this partly with the severe constraints for land ownership in the particular countries. Apart from that, it is important to bear in mind that a considerable amount of foreign investments was directed to the purchase of privatized state companies, in which production facilities already existed.

Overall, the variable doesn't have the expected image. Foreign investments were supposed to be the bringer of new technologies, skills and production growth. Despite the fact, that in certain regions there was significance, this is far from being able to justify a general view for FDI as production increasers. This is supported by the findings of Mileva (2008), who found limited significance between incoming capital flows in the transition countries and investment growth.



### *Sales Changes*

The sales change variable appears significant in Central European countries in BEEPS 1999, 2002 and 2005, while also in the Balkans in BEEPS 2005. In WBES the variable appears as marginally significant only in the OECD countries.

The results confirm the findings of Konigs' study (2001) which was based on firm level evidence in Poland, Bulgaria and Romania, belonging to both the Balkan and the Central European regions. Konigs found that only in Poland (Central European country) foreign firms were better performing than domestic ones, matching with the current results. The author states that it takes a long time before ownership effects can have an impact on performance, which can also be justified in the results as in BEEPS 2005 the Balkan foreign firms appear to be better performing than domestic firms. However, the WBES results show that in global level, only FDI firms in OECD countries, which are actually more developed, appear to be better performers than domestic firms.

### *Lobbying*

The variable is significant both in BEEPS 1999 and in BEEPS 2002 for Central European and Ex-Soviet countries. In BEEPS 2005, the variable is significant for the Balkan and the Ex-Soviet countries. The significant cases denote a significant involvement of foreign firms into lobby groups, which confirms also the results of Campos and Giovannoni (2007) based also on BEEPS<sup>8</sup>.

Following Campos and Giovannoni (2007) findings, lobbying is a corruption substitute (much more preferred) and is positively linked to firm size. The application of these to the current empirical results denotes that foreign firms in the significant cases were in general larger and that lobbying was a corruption alternative tool for the implementation of their goals. It is important to state that lobbying is differentiated from corruption in that it is initiated by the business entity and directed towards state's higher levels and as such it is merely an express of will on behalf of a business firm to impose its will and affect state decisions.

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<sup>8</sup> Their analysis did not include regional differentiation though

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***Corruption as a major obstacle (COR1)***

The variable is significant for Central European and Ex-Soviet countries in BEEPS 1999, while totally insignificant for all regions in BEEPS 2002 and in BEEPS 2005. In global level (WBES) it is insignificant for both OECD and non-OECD countries. The results in general show that domestic firms are not differentiated from foreign firms in facing corruption as a major obstacle for the operation and growth of their businesses. This certainly shows that foreign firms receive the same treatment as domestic firms by corrupt persons or mechanisms.

It could be claimed that this refers only to the foreign firms that have decided to invest in the particular countries and that this cannot be generalized, as there might be other foreign firms that were seriously deterred by high corruption levels and finally did not decide to invest in the studied countries and chose alternative investment locations. However, the results from global level (WBES) regressions imply that this phenomenon is met globally and both in developed and non-developed parts of the world (OECD and non-OECD countries).

The results are a first indication that the predominant view of corruption as one of the most important FDI deterrents may be challenged. Of course the fact that foreign firms are not differentiated from domestic firms in terms of facing corruption does not give any essential information about corruption levels themselves. However, it denotes that foreign firms are not in a disadvantageous position due to corruption presence. This approach is further strengthened if it is combined with the second corruption variable behavior, discussed below.

***Corruption payments as % of annual revenues (COR2)***

The variable is significant in BEEPS 1999 and BEEPS 2002 only for Ex-Soviet countries, while in BEEPS 2005, it is significant only for Central European countries. In global level (WBES) the variable is marginally significant in the non-OECD countries. COR2 in the case of Balkan countries in the BEEPS 1999 bears a negative sign, while in the case of Ex-Soviet countries has a positive sign. The results are identical to those of Hellman et al (2002), that found that there was no evidence that FDI firms were

paying a larger percentage of their revenues in unofficial payments than domestic firms (there was no regional segmentation in their study).

As it was mentioned previously, this finding adds up to the approach that foreign investors are not discriminated in the transition countries, as it is claimed sometimes, and therefore they are not found in disadvantageous position compared to their domestic rivals due to corruption. Therefore, in terms of competition conditions, the corruption presence impacts in the studied countries appear to be uniform for the entire market.

### ***Frequency of Unofficial Payments (COR3)***

The frequency of unofficial payments is reflected to COR3 variable. The only case in which the variable demonstrates significance is for Ex-Soviet countries in BEEPS 1999. In all other cases, the variable is insignificant, advocating also the view of foreign firms not being differentiated from domestic firms in terms of unofficial payments frequency.

### ***State Capture***

State capture variable is insignificant for both the Balkan and Central European FDI companies in all BEEPS rounds. However in the ex-Soviet countries in BEEPS 1999 and in BEEPS 2005, while also for the non OECD countries in WBES the variable is significant denoting an FDI tendency to get involved in this kind of practices. The results are in line with Hellman et al (2002), which also highlighted in their analysis the involvement of foreign firms into state capture activities and linked this phenomenon with specific states which are “*highly susceptible to capture by economic vested interests*”. This approach is confirmed in the results, in which only in Ex-Soviet countries the variable bears significance. Additionally, in global level (WBES), this is again confirmed in the non-OECD countries, which are considered to be countries with weaker institutions and thus easier to be captured by vested interests.

FDIs’ attitude towards corruption which was presented here could be further supported if combined with the corruption and FDI data statistics/graphs presented in the following chapter’s appendix (figures 1 and 2f). These graphs display the simultaneous increase of corruption and incoming FDIs in the transition countries between 1990 and

2003, which advocates further the approach that foreign investments were not deterred by high and increasing corruption levels and kept on coming.

It is important though to state that the corruption variables used and especially COR 1 which refers to the perception of corruption as a major obstacle embodies some sort of subjectivity. Despite the fact that the BEEPS corruption indices are considered as reliable (see section 4.3.2 referring to subjectivity), the results should be handled with a degree of awareness.

#### ***4.6 Conclusions***

The results of the empirical analysis which was based on BEEPS firm level data have formed a specific view for FDI features in the transition economies. This image refers to FDI as business entities significantly focused on exporting activities, revealing by this way some of the basic incentives of their presence in the studied countries, which relate primary to the exploitation by them of cost minimization factors. FDI's experience in international trade together with financial strength contributed to the domination of exports in the transition economies. The domestic firms, on the other hand, demonstrated a permanent inability to emerge as significant exporters. Foreign firms' image is further completed by their unobstructed access to capital sources, while at the same time domestic firms struggle to get access to finance, partially due to the new constraints posed to financial institutions due to transition to open market standards.

Regarding the sector preferences of foreign firms, the empirical analysis showed that MNEs tend to invest in the tertiary sector only in those countries in which this sector was not developed, that is the Balkans and the Ex-Soviet regions. In Central European economies in which tertiary sector was already developed in the initiation of transition, foreign firms were not particularly present more than domestic firms.

In terms of skilled labor, the empirical analysis showed that foreign firms do not employ significantly higher skilled labor than domestic firms. Therefore, in the transition economies, the view of Foreign Direct Investments as sources of spillover effects appears to be weakening. The fact that foreign firms are not significantly related to the

opening of new production lines adds also more to the formulation of an FDI image with rather few beneficial effects.

Foreign firms appear not to be affected by taxation at least more than domestic firms, which denotes the lack of taxation incentives in the studied countries.

The results do not give a strong indication that FDI firms have been particularly harmed by the presence of corruption, when compared with the domestic firms. The results form a view for FDI firms as entities which in certain cases and countries exploit host country's institutional weaknesses for their interests. At the same time corruption presence does not appear to annoy foreign firms significantly more than domestic firms, while also both groups (foreign and domestic firms) pay similar percentages of their revenues in bribes with also similar frequencies.

It could be argued that the fact that both the FDI and domestic firms had the same attitude towards corruption does not mean necessarily that the foreign firms were not annoyed and sometimes even prevented from starting business in such countries. However, combining the above results creates an image of FDI firms as having strong advantages, like: financial strength, international experience and opportunities (see export orientation). Moreover, they do not have any particular disadvantages that distinguish them from the domestic firms; for example, corruption problems have been the same for them all. Therefore, the overall assessment for their market position is undoubtedly positive. In addition, the evidence for the ex-Soviet countries shows that FDI firms have been involved in corrupt practices, like state capture, suggesting that there are indications of seeing them as grand corruption encouraging entities. Corruption in some cases, in the form of state capture, appears to have had FDI firms as key protagonists and this was verified by the empirical results at the global level (WBES). Lobbying can be examined in the same context as corruption since there are theoretical approaches that consider them as substitutes. This would indicate that a corrupt or an easily influenced environment after all is attractive to FDI. Therefore, the opinion that corruption is a key deterrent for FDI is not easily supported by the presented results, despite the fact that it is an opinion that has been widely contended in the relevant literature.

Last but not least, the analysis presented here demonstrates some of the imposed transition reforms impacts. The empirical results show that after almost a decade from the transition initiation, the countries of study have their markets in terms of export activities dominated by foreign firms, while at the same time domestic firms appear as struggling for getting access to finance. These add up to the skepticism expressed regarding the beneficiary and the objectives of the imposed transition reforms, especially when combined with the fact that the majority of the transition countries had adopted the shock therapy mode of transition.

## *Appendix of Chapter 4 Tables of Results*

Table 1. Descriptive Statistics for BEEPS 1999

## BEEPS 1999 BALKAN COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.102	0.236	0.385	0.454	3.651	3.088	3.275	12.607	0.269	2.759	3.017	4.279	5.621
Median	0	0	0	0	4	3	4	0	0	3	3	4	6
Maximum	1	1	1	1	6	4	4	700	1	4	7	6	6
Minimum	0	0	0	0	1	1	1	-90	0	1	1	1	1
Observations	873	873	851	851	871	855	864	812	872	790	421	795	654

## BEEPS 1999 CENTRAL EUROPEAN COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.156	0.328	0.453	0.595	3.979	2.700	3.066	25.954	0.366	2.134	2.866	4.518	5.679
Median	0	0	0	1	4	3	3	10	0	2	2	5	6
Maximum	1	1	1	1	6	4	4	900	1	4	7	6	6
Minimum	0	0	0	0	1	1	1	-90	0	1	1	1	1
Observations	1215	1215	1179	1205	1214	1191	1206	1185	1215	1104	479	1076	972

## BEEPS 1999 EX SOVIET COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.097	0.297	0.159	0.415	3.943	3.143	3.375	10.039	0.145	2.548	3.465	4.096	5.666
Median	0	0	0	0	4	4	4	0	0	3	3	4	6
Maximum	1	1	1	1	6	4	4	900	1	4	7	6	6
Minimum	0	0	0	0	1	1	1	-90	0	1	1	1	1
Observations	1866	1866	1803	1852	1866	1841	1854	1812	1866	1625	975	1702	1504



Table 2. BEEPS 1999 Results

	BALKAN				CENTRAL EUROPEAN				EX-SOVIET			
CONSTANT	-1.37 (-3.55)***	-1.33 (-2.20)**	-0.86 (-2.00)**	-1.21 (-2.01)**	-1.13 (-3.76)***	-0.68 (-1.34)	-1.00 (-2.77)***	-1.05 (-2.14)**	-1.14 (-4.15)***	-1.32 (-3.23)***	-0.26 (-0.84)	0.04 (0.099)
NEW PROD. LINE	0.36 (2.39)**	0.59 (2.77)***	0.39 (2.56)**	0.25 (1.78)*	-0.03 (-0.33)	-0.08 (-0.46)	-0.07 (-0.69)	-0.07 (-0.65)	0.35 (3.50)***	0.38 (2.93)***	0.35 (3.52)***	0.40 (3.69)***
EXPORTER	0.45 (3.09)***	0.78 (3.77)***	0.49 (3.41)***	0.44 (2.85)***	0.86 (5.49)***	0.48 (2.98)***	0.57 (5.32)***	0.55 (4.96)***	0.86 (7.85)***	0.95 (6.83)***	0.91 (8.31)***	0.88 (7.47)***
SERVICE SECTOR	0.07 (0.50)	0.39 (1.85)*	0.004 (0.02)	-0.07 (-0.45)	0.03 (0.32)	0.10 (0.63)	0.03 (0.29)	0.11 (0.98)	0.29 (2.96)***	0.38 (2.97)***	0.26 (2.62)***	0.28 (2.59)***
SKILLED WORKFORCE	-0.06 (-1.08)	-0.06 (-0.73)	-0.10 (-1.82)*	-0.05 (-0.75)	0.01 (0.21)	0.008 (-0.11)	-0.005 (-0.11)	0.007 (0.15)	0.03 (0.71)	0.08 (1.15)	0.05 (1.09)	0.03 (0.63)
FINANCE OBS	-0.20 (-3.06)***	-0.27 (-2.91)***	-0.18 (-2.75)***	-0.23 (-3.14)***	-0.18 (-3.76)***	-0.23 (-2.95)***	-0.18 (-3.79)***	-0.15 (-3.10)***	-0.23 (-4.93)***	-0.27 (-4.27)***	-0.26 (-5.54)***	-0.23 (-4.66)***
TAXATION OBS	0.18 (2.05)**	0.05 (0.40)	0.10 (1.17)	0.16 (1.74)	-0.03 (-0.52)	-0.003 (-0.03)	0.02 (0.36)	0.028 (0.45)	-0.1 (1.55)	-0.08 (-1.00)	-0.13 (-2.26)**	-0.13 (-2.20)**
SALES CHANGE	0.002 (0.21)	0.003 (0.23)	0.009 (0.009)	0.002 (0.25)	0.001 (2.64)***	0.009 (2.20)**	0.001 (2.33)**	0.001 (2.37)**	-0.004 (-0.71)	-0.007 (-0.87)	-0.001 (-1.45)	-0.009 (-1.17)
LOBBYING	0.24 (1.62)	0.14 (0.66)	0.17 (1.13)	0.11 (0.67)	0.15 (1.72)*	0.26 (1.81)*	0.18 (1.76)*	0.09 (2.1)**	0.18 (1.78)*	0.05 (2.15)*	0.12 (1.95)**	0.06 (2.14)**
COR1	-0.06 (-0.96)				0.1 (2.03)**				0.1 (2.05)**			
COR2		-0.08 (-1.20)				-0.05 (-0.67)				0.084 (1.89)*		
COR3			-0.06 (-1.39)				-0.002 (-0.07)				-0.13 (-4.60)***	
STATE CAPTURE				-0.008 (-0.11)				-0.01 (-0.17)				-0.16 (-3.43)***
OBS	701	367	694	567	1023	447	1215	896	1499	906	1566	1381
Mc Fadden R2	0.082	0.151	0.084	0.068	0.082	0.083	0.080	0.063	0.137	0.154	0.156	0.161
LR (PROB)	35.64(0.00)	37.61(0.00)	37.71(0.00)	35.49(0.002)	74.02(0.00)	31.38(0.00)	66.88(0.00)	50.78(0.00)	134(0.00)	95.78(0.00)	162(0.00)	139.96(0.00)
Andrews Test	25.9(0.23)	31.3(0.14)	11.48(0.32)	17.35(0.10)	6.31(0.78)	15.26(0.12)	4.6(0.91)	5.06(0.88)	16.79(0.08)	24.18(0.11)	6.63(0.57)	12.63(0.12)

In brackets are t statistics. \*\*\* denotes significance in 1%, \*\* denotes significance in 5%, \* denotes significance in 10%

Table 3. Descriptive Statistics for BEEPS 2002

## BEEPS 2002 BALKAN COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.161	0.447	0.261	0.568	0.392	2.417	2.809	20.713	0.573	2.521	1.722	2.659	1.599
Median	0	0	0	1	0	2	3	10	1	3	0	3	1
Maximum	1	1	1	1	1	4	4	600	1	4	30	6	6
Minimum	0	0	0	0	0	1	1	-100	0	1	0	1	1
Observations	1464	1451	1450	1464	1406	1362	1430	1371	1464	1349	1284	1345	1156

## BEEPS 2002 CENTRAL EUROPEAN COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.170	0.348	0.308	0.599	0.337	2.230	2.834	18.465	0.454	2.085	0.969	2.271	1.355
Median	0	0	0	1	0	2	3	5	0	2	0	2	1
Maximum	1	1	1	1	1	4	4	900	1	4	33	6	6
Minimum	0	0	0	0	0	1	1	-600	0	1	0	1	1
Observations	1922	1913	1916	1922	1903	1818	1905	1838	1922	1815	1740	1761	1715

## BEEPS 2002 EX SOVIET COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.159	0.387	0.188	0.522	0.409	2.343	2.684	31.021	0.256	2.204	1.999	2.866	1.340
Median	0	0	0	1	0	2	3	10	0	2	0.1	3	1
Maximum	1	1	1	1	1	4	4	990	1	4	50	6	6
Minimum	0	0	0	0	0	1	1	-400	0	1	0	1	1
Observations	2767	2755	2756	2767	2550	2630	2725	2700	2767	2549	2603	2618	2452

Table 4. BEEPS 2002 Results

	BALKAN				CENTRAL EUROPEAN				EX-SOVIET			
CONSTANT	-1.44 (-7.87)***	-1.36 (-7.35)***	-1.41 (-7.42)***	-1.4 (-7.08)***	-1.33 (-8.98)***	-1.38 (-9.21)***	-1.28 (-8.28)***	-1.34 (-8.34)***	-1.42 (-11.69)***	-1.36 (-11.34)	-1.37 (-10.89)***	-1.46 (-11.68)***
NEW PROD. LINE	0.18 (1.82)*	0.15 (1.77)*	0.14 (1.45)	0.11 (0.99)	0.03 (0.41)	0.07 (0.92)	0.02 (0.23)	0.02 (0.27)	0.08 (1.13)	0.11 (1.55)	0.14 (1.90)*	0.10 (1.39)
EXPORTER	0.62 (6.08)***	0.62 (5.81)***	0.65 (6.38)***	0.62 (5.75)***	0.69 (8.47)***	0.68 (8.00)***	0.71 (8.43)***	0.75 (8.77)***	0.75 (9.48)***	0.78 (9.81)***	0.77 (9.72)***	0.79 (9.86)***
SERVICE SECTOR	0.31 (3.19)***	0.25 (2.46)**	0.302 (3.06)***	0.303 (2.91)***	0.08 (1.05)	0.101 (1.22)	0.06 (0.73)	0.07 (0.92)	0.14 (1.96)**	0.18 (2.50)**	0.15 (2.19)**	0.19 (2.73)***
SKILLED WORKFORCE	0.02 (0.26)	0.01 (0.16)	0.05 (0.54)	0.047 (0.45)	0.08 (1.02)	0.04 (0.58)	0.07 (0.86)	0.07 (0.83)	0.13 (1.92)*	0.09 (1.38)	0.07 (1.06)	0.09 (1.36)
FINANCE OBS	-0.15 (-3.32)***	-0.14 (-3.25)***	-0.142 (-3.29)***	-0.16 (-3.49)***	-0.08 (-2.45)**	-0.06 (-1.67)*	-0.09 (-2.56)***	-0.09 (-2.63)**	-0.08 (-2.61)**	-0.07 (-2.49)**	-0.07 (-2.45)**	-0.08 (-2.46)**
TAXATION OBS	0.08 (1.73)*	0.09 (1.91)*	0.09 (1.96)**	0.09 (1.96)**	-0.01 (-0.35)	0.01 (0.36)	-0.005 (-0.13)	0.02 (0.65)	0.06 (1.73)*	0.05 (1.70)*	0.04 (1.46)	0.05 (1.56)
SALES CHANGE	0.007 (1.13)	0.005 (0.79)	0.007 (1.12)	0.007 (1.07)	0.001 (3.11)***	0.001 (2.83)***	0.001 (3.03)***	0.001 (2.56)**	0.003 (0.88)	0.002 (0.64)	0.004 (1.25)	0.004 (1.16)
LOBBYING	0.07 (0.74)	-0.005 (-0.04)	0.06 (0.61)	0.031 (0.28)	0.22 (2.83)***	0.22 (2.79)***	0.22 (2.78)***	0.21 (2.63)***	0.17 (2.35)**	0.14 (1.87)*	0.17 (2.26)**	0.16 (2.03)**
COR1	-0.007 (-0.16)				0.04 (1.08)				0.006 (0.19)			
COR2		-0.01 (-0.68)				-0.01 (-0.78)				-0.03 (-3.35)***		
COR3			-0.02 (-0.79)				0.01 (0.49)				-0.01 (-0.52)	
STATE CAPTURE				0.006 (0.13)				-0.003 (-0.06)				0.03 (0.95)
OBS	1134	1060	1120	975	1620	1550	1569	1535	2176	2200	2212	2086
Mc Fadden R2	0.071	0.065	0.075	0.071	0.089	0.084	0.091	0.093	0.077	0.085	0.079	0.083
LR (PROB)	70.76 (0.00)	59.97 (0.06)	73.31(0.00)	60.91(0.00)	132 (0.00)	118 (0.00)	130(0.00)	129.69(0.00)	145.5 (0.00)	160.7(0.00)	151.2 (0.00)	153.1 (0.00)
Andrews Test	12.26 (0.27)	9.62 (0.47)	9.52 (0.48)	7.07 (0.71)	11.85 (0.29)	13.65(0.09)	45.85(0.17)	36.63 (0.12)	71.97 (0.10)	13.69(0.18)	13.04(0.22)	15.22 (0.12)

In brackets are t statistics. \*\*\* denotes significance in 1%, \*\* denotes significance in 5%, \* denotes significance in 10%

Table 5. Descriptive Statistics for BEEPS 2005

## BEEPS 2005 BALKAN COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.119	0.380	0.271	0.602	0.235	2.326	2.605	9.373	0.583	2.437	0.963	2.516	1.515
Median	0	0	0	1	0	2	3	2	1	2	0	2	1
Maximum	1	1	1	1	1	4	4	310	1	4	50	6	6
Minimum	0	0	0	0	0	1	1	-90	0	1	0	1	1
Observations	1755	1755	1751	1755	1755	1670	1715	1695	1755	1644	1607	1548	1325

## BEEPS 2005 CENTRAL EUROPEAN COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labor	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.123	0.290	0.268	0.653	0.207	2.165	2.816	8.831	0.416	1.986	0.663	1.972	1.381
Median	0	0	0	1	0	2	3	0	0	2	0	1	1
Maximum	1	1	1	1	1	4	4	300	1	4	10	6	6
Minimum	0	0	0	0	0	1	1	-90	0	1	0	1	1
Observations	2307	2307	2298	2307	2307	2179	2268	2246	2307	2177	1989	2009	1968

## BEEPS 2005 EX SOVIET COUNTRIES

	FDI	New Line	Exporter	Service	Skilled Labour	Finance Obs	Taxation Obs	Sales Change	Lobbying	COR1	COR 2	COR3	STATE CAPT.
Mean	0.126	0.364	0.156	0.588	0.242	2.186	2.662	19.335	0.241	2.111	1.354	2.648	1.325
Median	0	0	0	1	0	2	3	10	0	2	0	2	1
Maximum	1	1	1	1	1	4	4	400	1	4	20	6	6
Minimum	0	0	0	0	0	1	1	-98	0	1	0	1	1
Observations	3323	3323	3323	3323	3323	3141	3272	3161	3323	3060	3008	3014	2784

Table 6. BEEPS 2005 Results

	BALKAN				CENTRAL EUROPEAN				EX-SOVIET			
CONSTANT	-1.53 (-8.87)***	-1.52 (-8.78)***	-1.53 (-8.33)***	-1.50 (-7.82)***	-1.26 (-8.58)***	-1.39 (-8.81)***	-1.14 (-7.26)***	-1.28 (-8.05)***	-1.25 (11.03)***	-1.18 (-10.59)***	-1.15 (-9.97)***	-1.25 (-10.46)***
NEW PROD. LINE	0.10 (1.13)	0.11 (1.15)	0.17 (1.79)*	0.20 (1.98)**	0.29 (3.54)***	0.27 (3.05)***	0.18 (2.14)**	0.23 (2.74)**	-0.03 (-0.47)	-0.01 (-0.23)	-0.03 (-0.48)	-0.05 (-0.81)
EXPORTER	0.59 (6.18)***	0.60 (6.13)***	0.56 (5.65)***	0.46 (4.32)***	0.74 (8.94)***	0.81 (9.00)***	0.75 (8.79)***	0.76 (8.80)***	0.86 (11.10)***	0.88 (11.23)***	0.87 (11.16)***	0.88 (10.85)***
SERVICE SECTOR	0.25 (2.65)***	0.28 (2.89)***	0.25 (2.56)**	0.28 (2.66)**	-0.01 (-0.23)	0.025 (0.29)	0.004 (0.049)	-0.016 (-0.18)	-0.08 (-1.27)	-0.10 (-1.52)	-0.10 (-1.56)	-0.07 (-1.03)
SKILLED WORKFORCE	0.02 (0.19)	0.04 (0.37)	0.01 (0.09)	-0.02 (-0.19)	-0.02 (-0.27)	-0.004 (-0.046)	0.019 (0.19)	-0.043 (-0.43)	-0.05 (-0.66)	0.02 (0.35)	-0.05 (-0.68)	-0.01 (-0.22)
FINANCE OBS	-0.13 (-3.03)***	-0.13 (-3.10)***	-0.15 (-3.50)***	-0.13 (-2.91)**	-0.16 (-4.08)***	-0.11 (-2.85)***	-0.18 (-4.73)***	-0.17 (-4.35)***	-0.08 (-2.77)***	-0.09 (-2.90)***	-0.09 (-2.83)***	-0.09 (-2.99)***
TAXATION OBS	-0.016 (-0.36)	-0.01 (-0.39)	-0.005 (-0.12)	-0.001 (-0.02)	-0.01 (-0.28)	0.005 (0.15)	0.003 (0.098)	0.02 (0.58)	-0.02 (-0.60)	0.006 (0.019)	0.002 (0.068)	0.003 (0.12)
SALES CHANGE	0.003 (3.01)***	0.003 (2.59)***	0.003 (2.70)**	0.002 (1.97)**	0.001 (1.73)*	0.001 (1.74)*	0.002 (1.71)*	0.002 (2.14)**	-0.002 (-0.316)	-0.003 (-0.53)	0.002 (0.34)	-0.002 (-0.28)
LOBBYING	0.25 (2.53)***	0.27 (2.76)***	0.27 (2.72)***	0.24 (2.25)**	0.09 (1.25)	0.06 (0.77)	0.09 (1.12)	0.13 (1.50)	0.39 (5.43)***	0.34 (4.59)***	0.33 (4.56)***	0.36 (4.86)***
COR1	0.02 (0.65)				0.02 (0.57)				0.05 (1.63)			
COR2		0.007 (0.46)				-0.06 (-2.28)**				-0.001 (-0.10)		
COR3			0.01 (0.5)				-0.03 (-1.05)				-0.009 (-0.43)	
STATE CAPTURE				0.008 (0.17)				-0.01 (-0.27)				0.06 (1.70)*
OBS	1521	1459	1423	1223	1995	1814	1838	1800	2763	2692	2712	2504
Mc Fadden R2	0.076	0.080	0.081	0.064	0.110	0.118	0.110	0.120	0.109	0.106	0.103	0.108
LR (PROB)	85.29 (0.00)	84.31 (0.00)	83.23(0.00)	56.27(0.00)	165(0.00)	145.3(0.00)	152.6(0.00)	152.1(0.00)	230.2(0.00)	218.01(0.00)	214.7 (0.00)	208.8 (0.00)
Andrews Test	11.76 (0.30)	6.65 (0.57)	8.73 (0.36)	12.18 (0.27)	11.72 (0.16)	11.11 (0.35)	13.04 (0.22)	11.98(0.15)	11.68(0.31)	4.44(0.92)	11.59 (0.17)	13.91 (0.17)

In brackets are t statistics. \*\*\* denotes significance in 1%, \*\* denotes significance in 5%, \* denotes significance in 10%

Table 7. Descriptive Statistics for WBES

## WBES OECD COUNTRIES

	FDI	Exporter	Service	Finance Obs	Taxation Obs	Sales Change	COR1	COR 2	COR3	STATE CAPT.
Mean	0.186	0.372	0.625	2.186	3.050	14.220	1.631	1.328	5.114	0.039
Median	0	0	1	2	3	10	1	1	6	0
Maximum	1	1	1	4	4	100	4	7	6	6
Minimum	0	0	0	1	1	-50	1	1	1	0
Observations	909	895	887	893	884	779	861	777	826	828

## WBES NON – OECD COUNTRIES

	FDI	Exporter	Service	Finance Obs	Taxation Obs	Sales Change	COR1	COR 2	COR3	STATE CAPT.
Mean	0.209	0.402	0.384	2.771	3.142	13.827	2.753	2.257	3.827	0.433
Median	0	0	0	3	3	10	3	2	4	0
Maximum	1	1	1	4	4	500	4	7	6	6
Minimum	0	0	0	1	1	-100	1	1	1	0
Observations	5730	5279	4891	4995	5474	4698	4495	2834	5227	2540

Table 8. WBES Results

	OECD				NON – OECD			
CONSTANT	-086 (-3.82)***	-0.89 (-3.68)***	-0.99 (-2.54)**	-0.87 (-3.79)***	-0.38 (-3.41)***	-0.59 (-4.43)***	-0.47 (-3.67)***	-0.55 (-3.93)***
EXPORTER	0.97 (7.93)***	1.078 (8.03)***	0.97 (7.65)***	1.04 (8.10)***	0.37 (6.65)***	0.56 (7.67)***	0.49 (9.35)***	0.47 (6.18)***
SERVICE SECTOR	0.11 (0.92)	0.13 (1.03)	0.11 (0.92)	0.05 (0.44)	0.12 (2.41)**	0.12 (1.71)*	0.18 (2.45)**	0.15 (1.99)**
FINANCE OBS	-0.14 (-2.37)**	-0.12 (-1.85)*	-0.18 (-2.98)***	-0.15 (-2.63)**	-0.17 (-7.05)***	-0.18 (-6.09)***	-0.18 (-7.50)***	-0.19 (-6.33)***
TAXATION OBS	-0.08 (-1.62)	-0.11 (-1.79)*	-0.07 (-1.15)	-0.09 (-1.73)*	-0.02 (-1.21)	0.003 (0.01)	-0.02 (-0.77)	-0.003 (-0.10)
SALES CHANGE	0.003 (1.54)	0.002 (0.99)	0.003 (1.69)*	0.003 (1.65)*	0.001 (2.09)**	0.0002 (0.21)	0.001 (2.05)**	0.006 (0.61)
COR1	-0.004 (-0.07)				-0.004 (-0.18)			
COR2		-0.08 (-1.05)				-0.038 (-1.69)*		
COR3			0.008 (0.17)				-0.009 (-0.65)	
STATE CAPTURE				-0.21 (-0.73)				-0.05 (-2.13)**
OBS	701	631	680	665	2978	2007	3284	1840
Mc Fadden R2	0.115	0.136	0.118	0.135	0.038	0.057	0.049	0.051
LR (PROB)	80.08(0.00)	82.03 (0.00)	77.12(0.00)	87.34 (0.00)	123.5 (0.00)	113.9(0.00)	173.1 (0.00)	96.68(0.00)
Andrews Test	6.05 (0.81)	13.78 (0.18)	8.73 (0.36)	6.29 (0.79)	9.43(0.49)	7.51 (0.67)	15.54 (0.11)	13.05 (0.22)

In brackets are t statistics. \*\*\* denotes significance in 1%, \*\* denotes significance in 5%, \* denotes significance in 10%

Table 9. Correlation Matrix for BEEPS 1999 (Balkan Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,064	-0,180	-0,076	-0,015	0,012	0,131	0,155	-0,011	-0,080	-0,024	-0,071
EXPORTER	0,064	1	-0,239	0,009	-0,015	-0,026	0,074	0,205	-0,127	-0,141	0,151	0,095
SERVICE	-0,180	-0,239	1	0,069	-0,133	-0,051	-0,032	-0,124	0,016	0,080	-0,071	-0,029
SKILLED LABOR	-0,076	0,009	0,069	1	0,132	0,093	-0,015	0,018	-0,100	0,077	-0,031	-0,056
FINANCE OBSTACLES	-0,015	-0,015	-0,133	0,132	1	0,383	-0,026	-0,042	0,176	-0,092	-0,094	-0,035
TAX OBSTACLES	0,012	-0,026	-0,051	0,093	0,383	1	0,018	-0,029	0,317	0,048	-0,241	-0,096
SALES CHANGE	0,131	0,074	-0,032	-0,015	-0,026	0,018	1	0,022	-0,054	-0,077	-0,020	-0,031
LOBBYING	0,155	0,205	-0,124	0,018	-0,042	-0,029	0,022	1	0,027	-0,111	0,077	-0,034
COR1	-0,011	-0,127	0,016	-0,100	0,176	0,317	-0,054	0,027	1	0,157	-0,343	-0,207
COR2	-0,080	-0,141	0,080	0,077	-0,092	0,048	-0,077	-0,111	0,157	1	-0,402	-0,105
COR3	-0,024	0,151	-0,071	-0,031	-0,094	-0,241	-0,020	0,077	-0,343	-0,402	1	0,281
STATE CAPTURE	-0,071	0,095	-0,029	-0,056	-0,035	-0,096	-0,031	-0,034	-0,207	-0,105	0,281	1



Table 10. Correlation Matrix for BEEPS 1999 (Central European Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,184	-0,142	0,041	-0,063	-0,014	0,230	0,183	-0,004	-0,082	0,020	-0,025
EXPORTER	0,184	1	-0,232	0,012	-0,054	-0,070	0,058	0,217	-0,079	-0,161	0,071	-0,001
SERVICE	-0,142	-0,232	1	0,016	-0,048	0,039	0,047	-0,065	0,016	-0,029	-0,029	-0,090
SKILLED LABOR	0,041	0,012	0,016	1	-0,115	-0,020	0,090	0,106	-0,054	-0,098	-0,014	-0,023
FINANCE OBSTACLES	-0,063	-0,054	-0,048	-0,115	1	0,288	-0,139	-0,105	0,208	0,177	-0,136	-0,010
TAX OBSTACLES	-0,014	-0,070	0,039	-0,020	0,288	1	-0,057	-0,054	0,260	0,141	-0,110	-0,069
SALES CHANGE	0,230	0,058	0,047	0,090	-0,139	-0,057	1	0,108	0,035	-0,113	-0,032	-0,041
LOBBYING	0,183	0,217	-0,065	0,106	-0,105	-0,054	0,108	1	-0,104	-0,033	0,094	-0,014
COR1	-0,004	-0,079	0,016	-0,054	0,208	0,260	0,035	-0,104	1	0,247	-0,407	-0,217
COR2	-0,082	-0,161	-0,029	-0,098	0,177	0,141	-0,113	-0,033	0,247	1	-0,347	-0,230
COR3	0,020	0,071	-0,029	-0,014	-0,136	-0,110	-0,032	0,094	-0,407	-0,347	1	0,324
STATE CAPTURE	-0,025	-0,001	-0,090	-0,023	-0,010	-0,069	-0,041	-0,014	-0,217	-0,230	0,324	1

Table 11. Correlation Matrix for BEEPS 1999 (Ex-Soviet Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,153	-0,089	0,023	-0,036	-0,013	0,205	0,039	0,010	-0,017	0,028	-0,047
EXPORTER	0,153	1	-0,100	-0,025	-0,010	-0,002	0,109	0,150	-0,020	-0,073	0,018	-0,073
SERVICE	-0,089	-0,100	1	-0,070	-0,171	-0,040	-0,029	-0,015	0,016	0,142	-0,085	-0,034
SKILLED LABOR	0,023	-0,025	-0,070	1	0,128	0,056	0,038	0,004	0,045	-0,024	-0,001	-0,061
FINANCE OBSTACLES	-0,036	-0,010	-0,171	0,128	1	0,363	-0,032	0,032	0,226	0,060	-0,073	-0,055
TAX OBSTACLES	-0,013	-0,002	-0,040	0,056	0,363	1	-0,045	0,009	0,283	0,067	-0,112	-0,057
SALES CHANGE	0,205	0,109	-0,029	0,038	-0,032	-0,045	1	0,040	-0,013	-0,080	0,001	-0,054
LOBBYING	0,039	0,150	-0,015	0,004	0,032	0,009	0,040	1	0,017	-0,032	-0,076	-0,085
COR1	0,010	-0,020	0,016	0,045	0,226	0,283	-0,013	0,017	1	0,209	-0,298	-0,142
COR2	-0,017	-0,073	0,142	-0,024	0,060	0,067	-0,080	-0,032	0,209	1	-0,358	-0,247
COR3	0,028	0,018	-0,085	-0,001	-0,073	-0,112	0,001	-0,076	-0,298	-0,358	1	0,318
STATE CAPTURE	-0,047	-0,073	-0,034	-0,061	-0,055	-0,057	-0,054	-0,085	-0,142	-0,247	0,318	1

Table 12. Correlation Matrix for BEEPS 2002 (Balkan Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,119	-0,093	0,184	0,014	0,015	0,124	0,060	0,009	0,013	0,035	0,023
EXPORTER	0,119	1	-0,122	0,079	0,000	0,030	0,051	0,259	-0,002	-0,092	-0,036	0,031
SERVICE	-0,093	-0,122	1	-0,109	-0,020	0,014	-0,011	-0,112	-0,018	-0,009	-0,012	0,016
SKILLED LABOR	0,184	0,079	-0,109	1	0,010	0,069	0,169	0,080	0,060	0,071	0,014	0,009
FINANCE OBSTACLES	0,014	0,000	-0,020	0,010	1	0,351	-0,090	-0,037	0,277	0,093	0,191	0,105
TAX OBSTACLES	0,015	0,030	0,014	0,069	0,351	1	0,020	0,070	0,334	0,111	0,208	0,116
SALES CHANGE	0,124	0,051	-0,011	0,169	-0,090	0,020	1	0,107	0,034	-0,015	0,055	0,064
LOBBYING	0,060	0,259	-0,112	0,080	-0,037	0,070	0,107	1	0,022	-0,028	0,010	0,009
COR1	0,009	-0,002	-0,018	0,060	0,277	0,334	0,034	0,022	1	0,181	0,344	0,255
COR2	0,013	-0,092	-0,009	0,071	0,093	0,111	-0,015	-0,028	0,181	1	0,430	0,167
COR3	0,035	-0,036	-0,012	0,014	0,191	0,208	0,055	0,010	0,344	0,430	1	0,258
STATE CAPTURE	0,023	0,031	0,016	0,009	0,105	0,116	0,064	0,009	0,255	0,167	0,258	1

Table 13. Correlation Matrix for BEEPS 2002 (Central European Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,194	-0,081	0,138	0,023	0,069	0,128	0,109	0,086	0,004	0,066	0,052
EXPORTER	0,194	1	-0,176	0,142	-0,056	-0,079	0,120	0,232	-0,042	-0,050	0,002	-0,013
SERVICE	-0,081	-0,176	1	-0,105	-0,024	-0,005	-0,052	-0,076	-0,016	0,009	0,035	0,009
SKILLED LABOR	0,138	0,142	-0,105	1	-0,023	0,008	0,183	0,095	0,042	-0,026	0,026	0,010
FINANCE OBSTACLES	0,023	-0,056	-0,024	-0,023	1	0,325	-0,058	-0,036	0,285	0,116	0,205	0,090
TAX OBSTACLES	0,069	-0,079	-0,005	0,008	0,325	1	-0,093	-0,088	0,359	0,138	0,162	0,039
SALES CHANGE	0,128	0,120	-0,052	0,183	-0,058	-0,093	1	0,083	-0,070	0,001	0,025	0,032
LOBBYING	0,109	0,232	-0,076	0,095	-0,036	-0,088	0,083	1	-0,006	-0,023	-0,012	0,070
COR1	0,086	-0,042	-0,016	0,042	0,285	0,359	-0,070	-0,006	1	0,234	0,381	0,157
COR2	0,004	-0,050	0,009	-0,026	0,116	0,138	0,001	-0,023	0,234	1	0,434	0,179
COR3	0,066	0,002	0,035	0,026	0,205	0,162	0,025	-0,012	0,381	0,434	1	0,278
STATE CAPTURE	0,052	-0,013	0,009	0,010	0,090	0,039	0,032	0,070	0,157	0,179	0,278	1

Table 14. Correlation Matrix for BEEPS 2002 (Ex – Soviet Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,186	-0,222	0,169	-0,020	0,065	0,154	0,130	0,087	0,049	0,049	0,095
EXPORTER	0,186	1	-0,128	0,100	-0,022	0,026	0,113	0,225	0,021	-0,042	-0,014	0,049
SERVICE	-0,222	-0,128	1	-0,073	-0,052	-0,020	-0,025	-0,029	0,021	0,022	0,022	0,029
SKILLED LABOR	0,169	0,100	-0,073	1	-0,011	0,026	0,186	0,110	0,055	0,026	0,040	0,059
FINANCE OBSTACLES	-0,020	-0,022	-0,052	-0,011	1	0,286	-0,013	-0,037	0,240	0,079	0,087	0,073
TAX OBSTACLES	0,065	0,026	-0,020	0,026	0,286	1	-0,016	0,000	0,354	0,112	0,200	0,110
SALES CHANGE	0,154	0,113	-0,025	0,186	-0,013	-0,016	1	0,118	-0,015	-0,033	0,014	0,030
LOBBYING	0,130	0,225	-0,029	0,110	-0,037	0,000	0,118	1	0,031	-0,011	-0,004	0,031
COR1	0,087	0,021	0,021	0,055	0,240	0,354	-0,015	0,031	1	0,219	0,281	0,175
COR2	0,049	-0,042	0,022	0,026	0,079	0,112	-0,033	-0,011	0,219	1	0,376	0,190
COR3	0,049	-0,014	0,022	0,040	0,087	0,200	0,014	-0,004	0,281	0,376	1	0,282
STATE CAPTURE	0,095	0,049	0,029	0,059	0,073	0,110	0,030	0,031	0,175	0,190	0,282	1

Table 15. Correlation Matrix for BEEPS 2005(Balkan Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,155	-0,148	0,058	0,011	-0,010	0,152	0,122	0,047	-0,006	0,046	0,027
EXPORTER	0,155	1	-0,201	0,036	-0,023	0,000	0,022	0,266	0,011	-0,059	-0,006	0,006
SERVICE	-0,148	-0,201	1	-0,109	-0,060	-0,086	-0,001	-0,210	-0,033	0,010	-0,066	-0,035
SKILLED LABOR	0,058	0,036	-0,109	1	-0,026	0,058	0,067	0,088	0,007	0,003	0,017	-0,040
FINANCE OBSTACLES	0,011	-0,023	-0,060	-0,026	1	0,345	-0,068	-0,021	0,254	0,034	0,161	0,111
TAX OBSTACLES	-0,010	0,000	-0,086	0,058	0,345	1	-0,030	0,037	0,369	0,094	0,243	0,194
SALES CHANGE	0,152	0,022	-0,001	0,067	-0,068	-0,030	1	0,015	0,016	-0,022	-0,012	-0,012
LOBBYING	0,122	0,266	-0,210	0,088	-0,021	0,037	0,015	1	0,102	-0,005	0,030	0,028
COR1	0,047	0,011	-0,033	0,007	0,254	0,369	0,016	0,102	1	0,153	0,377	0,234
COR2	-0,006	-0,059	0,010	0,003	0,034	0,094	-0,022	-0,005	0,153	1	0,324	0,141
COR3	0,046	-0,006	-0,066	0,017	0,161	0,243	-0,012	0,030	0,377	0,324	1	0,364
STATE CAPTURE	0,027	0,006	-0,035	-0,040	0,111	0,194	-0,012	0,028	0,234	0,141	0,364	1

Table 16. Correlation Matrix for BEEPS 2005 (Central European Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,205	-0,118	0,068	-0,013	0,001	0,147	0,075	0,040	0,033	0,028	0,039
EXPORTER	0,205	1	-0,174	0,077	-0,040	-0,063	0,119	0,199	0,017	-0,018	-0,012	-0,009
SERVICE	-0,118	-0,174	1	-0,100	-0,108	-0,068	-0,067	-0,039	-0,079	-0,043	-0,033	0,003
SKILLED LABOR	0,068	0,077	-0,100	1	0,018	-0,013	0,076	0,036	0,018	0,024	0,026	-0,009
FINANCE OBSTACLES	-0,013	-0,040	-0,108	0,018	1	0,354	-0,104	-0,048	0,285	0,082	0,123	0,083
TAX OBSTACLES	0,001	-0,063	-0,068	-0,013	0,354	1	-0,106	-0,137	0,325	0,104	0,159	0,092
SALES CHANGE	0,147	0,119	-0,067	0,076	-0,104	-0,106	1	0,106	-0,062	-0,022	0,037	0,003
LOBBYING	0,075	0,199	-0,039	0,036	-0,048	-0,137	0,106	1	-0,101	-0,074	-0,085	0,003
COR1	0,040	0,017	-0,079	0,018	0,285	0,325	-0,062	-0,101	1	0,238	0,354	0,239
COR2	0,033	-0,018	-0,043	0,024	0,082	0,104	-0,022	-0,074	0,238	1	0,422	0,201
COR3	0,028	-0,012	-0,033	0,026	0,123	0,159	0,037	-0,085	0,354	0,422	1	0,350
STATE CAPTURE	0,039	-0,009	0,003	-0,009	0,083	0,092	0,003	0,003	0,239	0,201	0,350	1

Table 17. Correlation Matrix for BEEPS 2005 (Ex- Soviet Countries)

	NEW LINE	EXPORTER	SERVICE	SKILLED LABOR	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	LOBBYING	COR1	COR2	COR3	STATE CAPTURE
NEWLINE	1	0,147	-0,137	0,048	-0,009	0,044	0,173	0,168	0,081	0,086	0,092	0,104
EXPORTER	0,147	1	-0,187	0,047	-0,024	-0,023	0,105	0,269	0,043	-0,015	0,027	0,020
SERVICE	-0,137	-0,187	1	-0,098	-0,053	-0,058	-0,039	-0,090	-0,049	-0,067	-0,049	-0,029
SKILLED LABOR	0,048	0,047	-0,098	1	0,027	0,016	0,070	0,039	0,077	0,048	0,059	0,025
FINANCE OBSTACLES	-0,009	-0,024	-0,053	0,027	1	0,316	-0,007	-0,005	0,237	0,098	0,135	0,056
TAX OBSTACLES	0,044	-0,023	-0,058	0,016	0,316	1	-0,006	0,032	0,349	0,115	0,169	0,097
SALES CHANGE	0,173	0,105	-0,039	0,070	-0,007	-0,006	1	0,123	0,032	0,023	0,078	0,023
LOBBYING	0,168	0,269	-0,090	0,039	-0,005	0,032	0,123	1	0,086	0,006	0,061	0,065
COR1	0,081	0,043	-0,049	0,077	0,237	0,349	0,032	0,086	1	0,264	0,390	0,260
COR2	0,086	-0,015	-0,067	0,048	0,098	0,115	0,023	0,006	0,264	1	0,424	0,173
COR3	0,092	0,027	-0,049	0,059	0,135	0,169	0,078	0,061	0,390	0,424	1	0,264
STATE CAPTURE	0,104	0,020	-0,029	0,025	0,056	0,097	0,023	0,065	0,260	0,173	0,264	1



Table 18. Correlation Matrix for WBES (OECD Countries)

	EXPORTER	SERVICE	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	COR1	COR2	COR3	STATE CAPTURE
EXPORTER	1	-0,267	0,037	0,060	0,082	0,009	0,034	-0,006	-0,043
SERVICE	-0,267	1	-0,034	-0,070	0,017	-0,034	-0,011	0,072	0,000
FINANCE OBSTACLES	0,037	-0,034	1	0,177	0,002	0,270	0,166	-0,244	0,046
TAX OBSTACLES	0,060	-0,070	0,177	1	-0,022	0,137	0,107	-0,182	0,010
SALES CHANGE	0,082	0,017	0,002	-0,022	1	-0,071	-0,067	0,018	0,034
COR1	0,009	-0,034	0,270	0,137	-0,071	1	0,298	-0,317	0,115
COR2	0,034	-0,011	0,166	0,107	-0,067	0,298	1	-0,500	0,279
COR3	-0,006	0,072	-0,244	-0,182	0,018	-0,317	-0,500	1	-0,175
STATE CAPTURE	-0,043	0,000	0,046	0,010	0,034	0,115	0,279	-0,175	1

Table 19. Correlation Matrix for WBES (Non OECD countries)

	EXPORTER	SERVICE	FINANCE OBSTACLES	TAX OBSTACLES	SALES CHANGE	COR1	COR2	COR3	STATE CAPTURE
EXPORTER	1	-0,312	-0,039	-0,060	0,053	-0,038	-0,073	0,002	0,023
SERVICE	-0,312	1	-0,042	-0,010	0,009	-0,040	0,026	0,034	-0,055
FINANCE OBSTACLES	-0,039	-0,042	1	0,246	-0,019	0,228	0,149	-0,193	0,103
TAX OBSTACLES	-0,060	-0,010	0,246	1	-0,037	0,293	0,149	-0,188	0,056
SALES CHANGE	0,053	0,009	-0,019	-0,037	1	-0,039	-0,004	-0,034	0,022
COR1	-0,038	-0,040	0,228	0,293	-0,039	1	0,303	-0,365	0,090
COR2	-0,073	0,026	0,149	0,149	-0,004	0,303	1	-0,538	0,197
COR3	0,002	0,034	-0,193	-0,188	-0,034	-0,365	-0,538	1	-0,119
STATE CAPTURE	0,023	-0,055	0,103	0,056	0,022	0,090	0,197	-0,119	1

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## ***CHAPTER 5. FDI and Governance in Transition Economies***

### ***5.1 Introduction***

The chapter focuses on the issue of governance and its impact on incoming foreign investments in the transition economies. The transition process initiation uprooted the previous institutional framework and introduced a new one. In most of the cases this took place with extreme difficulties creating very often serious abnormalities. These abnormalities in turn had serious impacts on the business environment, which interacted with incoming foreign investments. The primary aim of this chapter is to study empirically the relation between incoming foreign investments and a series of host and home countries' governance aspects. The empirical examination of the link between governance and FDI is limited particularly in the case of transition countries. The empirical analysis presented in this chapter makes an important contribution to the literature by applying a panel data gravity model and by analyzing the governance and

FDI link in the context of 16 transition countries<sup>9</sup> in two alternative ways. First, the level of good governance in the target country is analysed. Second, the absolute difference in the governance level between the source and target country is examined. The results suggest that, once distance and economic size of the source and target countries are taken into account, there is a significant and negative relationship between good governance and FDI. Moreover, firms from good governance countries that decide to invest in the transition economies appear to prefer for their investments those countries that have poor governance.

The chapter is structured as follows. Section 5.2 contains the literature, while section 5.3 focuses on governance and FDI issues in the transition economies. Sections 5.4 and 5.5 describe the gravity model and panel data analysis respectively. The empirical results are discussed in Section 5.6. The chapter concludes in section 5.7

## ***5.2 Literature Review***

The relation between foreign direct investment (FDI) and governance aspects has been analyzed in the literature. In this literature, some articles have argued that good governance encourages FDI (Shleifer & Vishny, 1998; World Bank, 2002; Globerman & Shapiro, 2002; Globerman & Shapiro, 2003; Globerman et al, 2004; La Porta et al, 1997, 1998; Gani, 2007). The prevailing view is that countries with good governance tend to attract more FDI because in the absence of good governance investment cannot be protected (Globerman & Shapiro, 2003) and poor governance increases costs and uncertainty (Cuervo-Cazurra, 2008a,b). Governance is widely defined as “the traditions and institutions by which the authority in a country is exercised” (Kaufman, Kraay and Zoido-Lobaton, 1999), and good governance implies “an independent judiciary and

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<sup>9</sup> These are 2 former Soviet Union countries (Russia and Ukraine), 6 Balkan countries (Bosnia, Bulgaria, Croatia, FYROM, Romania and Serbia) and 8 Central European countries (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia). The selection of countries is determined by the availability of data.

legislation, fair and transparent laws with impartial enforcement, reliable public financial information, and high public trust” (Li, 2005).

This view, however, is not unanimous and disputed by Li and Filer (2004), Li (2005) and Zhu (2007). Li (2005) argues that the absence of good governance does not imply the absence of protection as “relation-based governance” system replaces the “rule-based governance” system to govern social and economic transactions. In other words in the absence of good governance firms predominately rely on private relationships to protect their business. In a relation-based system, the political system tends to be dominated by powerful rulers and policies tend to favour big business which may provide fertile ground for large MNEs.

Zhu (2007) argues that foreign firms are heterogeneous in dealing with poor governance and strategically adjust to local environment in order to get business contracts. In a good governance environment with well-developed laws, courts, democratic institutions and property rights protection, the firms play the game according to the rules as misbehaviour would cost them heavily in terms of legal sanctions as well as reputation. However in a poor governance environment where foreign firms compete with both domestic and other foreign firms, they adjust to the local business climate, pay bribes in order to get business contracts which magnify the problems of poor governance in target countries. Therefore Zhu (2007: 3) states that *“in more democratic and developed countries, increasing FDI inflows are likely to contribute to reduction of corruption, while in non-democratic and less developed countries, a rise in FDI inflows is associated with a higher level of corruption.”*

Zhu (2007) suggests that in poor governance environment foreign firms would have little incentives to try to improve governance. Those firms that benefit from poor governance through paying bribes would obviously have no incentives to speak out against it. Those firms that lose business contracts because of corruption may prefer to keep quiet for two reasons. Firstly, speaking out or prosecution often fails because of the weak legal system and the strong relationship between the winner and courts. Secondly, business is a

repeated game and losers in a single business contract may not want to destroy their relation with local clients given the opportunities to get contracts next time. Complaining about bad governance is likely to create more hostility and reduce opportunities to get future contracts.

In the case of corruption, the literature is richer. Many researchers have argued that high corruption levels deter FDI in the transition countries (Resmini 2000, Hellman, Jones and Kaufmann 2002, Bevan and Estrin 2004, Caetano 2005). However, there are plenty of authors that support the view of corruption as a tool for compensating bad governance, which in turn provides to corruption an FDI enhancing character (Leys, 1965; Bailey, 1966; Huntington, 1968; Lui, 1985; Beck and Maher, 1986; Lien, 1986; Shleifer and Vishny, 1994; Bardhan, 1997; Kaufmann and Wei, 2000; Aidt, 2003; Meon and Sekkat, 2005). This is usually done through the options that corruption provides (usually via bribes) to circumvent either deliberately delaying state mechanisms or unwilling civil servants. Therefore corruption can compensate bad governance and attract more FDI. It is important to note that what is discussed here is not whether corruption reduces FDI in general but whether corruption offset already existing distortions resulting from the low quality of governance. This implies that FDI should be lower with corruption in a country with relatively high quality of governance. In this case corruption entails costs and has no imperfection to grease.

### ***5.3 Governance and FDI in the Transition Countries***

Bevan and Estrin (2004) suggest that transition countries could be seen as “*a useful laboratory to test hypotheses about the determinants of FDI because such flows were virtually unknown before the fall of Communism in the early 1990s and the target countries are differentiated by size, level of economic and institutional development, and proximity to Western Europe*”.

Indeed, since the early 1990s FDI into these 16 transition countries and their global share of inward FDI stock increased significantly from 0.3 percent in 1990 to 5.5 percent in 2006. Figure 1 in the Appendix shows that the inward FDI stock as percentage of GDP increased in the transition countries much faster than the world average between 1990 and 2003.

A simple observation of governance figures reveals contradictory results. On the one hand, the increase in FDI is associated with a worsening of corruption in these transition countries. Indeed, figure 2f shows that the transition countries in the sample have high levels of corruption and, apart from Croatia, all countries experienced a worsening of corruption between 1990 and 2003. On the other hand, a simple correlation between the two variables for the 16 transition countries for 2005 produces a strong positive correlation (R-square is 0.388) which seemingly reaffirms the view that high corruption countries receive low level of FDI (see figure 3). If Slovenia<sup>10</sup> is excluded from the regression, the correlation becomes even more significant (R-square increases to 0.660) which suggests that corruption may be the most important factor determining FDI into these transition countries.

There are at least two other factors that complicate the picture further. Firstly figure 2 suggests that the transition countries on average experienced an improvement with their other governance indicators which may have compensated the worsening of corruption. Secondly, distance from source countries (particularly the EU, a major investor in these transition countries) may play a significant role that needs to be taken into account. For example, in the sample, the inward FDI stock to GDP ratio for the former Soviet Union countries (18.5%) that are more remote from the EU is significantly lower than Central European (43.2%) countries that are the nearest to the EU. These observations imply that a more careful investigation over the role of governance in attracting FDI is necessary.

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<sup>10</sup> Slovenia has unusually low level of corruption and FDI

### 5.4 Gravity Model

The empirical analysis adopted is based on the gravity model. Gravity models are traditionally used to study trade flows from source ( $S$ ) to target ( $T$ ) economies but they are also increasingly used to study FDIs. The model is inspired by the Newtonian Universal gravity law according to which the gravity force between two discrete bodies depends on their masses and on their distance. The gravity model is of a highly applied nature and much of its success can be attributed to its remarkable predictive power and intuitive appeal (Bos and Van de Laar, 2004).

Theoretical foundations of the gravity model include Anderson (1979), Bergstrand (1985), Egger (1999) and Harris (1998). A large number of authors have extended the use of gravity modeling in studying FDI (Bevan and Estrin, 2004; Bos and Van de Laar, 2004; Gopinath and Echeverria, 2004; Egger and Pfafermayr, 2004; Guerin and Manzocchi, 2006; Eaton and Tamura, 1994; Frankel and Wei, 1997; Wei, 1997, 2000; Blonigen and Davis, 2000; Stein and Daude, 2001; Yeyati, Panizza and Stein, 2001; Janicki et al, 2005; Guerin, 2006; Borrmann et al, 2005; Habib and Zurawicky, 2002)

The main components of the model are the relative market sizes of the two economies and the geographic distance between their main economic centres. Regarding the distance variable, it is widely recognized that even in the era of globalization it is still a very significant determinant for international investments (Ghewamat, 2001). Given the gravity variables, the FDI potential between two countries can be estimated. Additional variables can be added into the model in order to face misspecification and omitted variables bias. The model takes the following form:

$$FDI_{STit} = \beta_0 + \beta_1 GDP_{Sit} + \beta_2 GDP_{Tit} + \beta_3 DISTANCE_{ST} + \beta_4 GOV_{Tit} + \beta_5 CONTROL_{Tit} + \varepsilon_{it}$$



Where

$FDI_{Stt}$  is the bilateral FDI stock<sup>11</sup> from the source to target country in current US Dollars (Source: Vienna Institute for International Economic Studies Database 2006).

$GDP_{Sit}$  and  $GDP_{Tit}$  are the GDPs of the source and target countries in current US Dollars. (Source: World Development Indicators Database 2007).<sup>12</sup>

$DISTANCE_{ST}$  is the geographic distance between the source and target country which is a proxy for transportation and information costs. Guerin (2006) states that the cost of information gathering would likely increase with distance, as familiarity with the target country's investment opportunities, customs and culture decreases. For example, the costs of transport and communications, the costs of dealing with cultural and language differences, the costs of sending personnel abroad, and the informational costs of institutional and legal factors, e.g., local property rights, regulations and tax systems are all assumed to increase with distance. (Source: Centre d' Etudes Prospectives et d' Informations Internationales (CEPII) database)

$GOV_{Tit}$  is the indicators of governance: 'Bureaucratic Quality' is a representation of the strength, expertise and autonomy of a bureaucracy to perform without drastic changes in policy or interruptions in government services. 'Law and Order' is a combined index of Law, which assesses the strength and impartiality of the legal system and of the Order, which displays the popular observance of the law. 'Socioeconomic Conditions' consist of 3 subcomponents, which are Unemployment, Consumer Confidence and Poverty. In general this index assesses the socioeconomic pressures that could constrain government action or cause social dissatisfaction. 'Democratic Accountability' measures the extent at which a government is responsive to its people. 'Government Stability' index is a

<sup>11</sup> Vienna Institute defines FDI as firms whose at least 10% of their shares belong to a foreign firm.

<sup>12</sup> The GDPs of the countries can be replaced with their per capita GDPs and populations but per capita GDP interacts with the other independent variables including the governance variables.

representation of a government's ability to carry out the declared program and stay in power. It consists of 3 subcomponents, which are Government Unity, Legislative Strength and Popular Support. 'Control of Corruption' accounts for corruption in the form of bribes, excessive patronage and nepotism. (Source: All governance indicators are taken from the PRS Group International Country Risk Guide).

$CONTROL_{Tit}$  refers to the control variables that are added to reduce the risk of excluded variables bias. These were selected from a larger list of variables. Many of these variables were excluded due to their high collinearity with the governance variables, limited data availability and their low degree of statistical significance. These are described below:

"TRADE" variable is taken from Kane, Holmes and O'Grady (2007) and is a composite measure of the prevailing trade regime (absence of tariff and non-tariff barriers that affect imports and exports of goods and services). The variable is scaled from 0 to 100 and high values indicate more liberal trade regimes. The variable is expected to bear a positive sign.

"EU LINKS" is a dummy variable and takes the value of one for the years after the initiation of accession talks between a candidate country and the EU. The EU links is associated with the perceived reduction in country-specific risk and transaction costs as well as increased creditworthiness.

"LANDLOCK" is a dummy variable displaying a country's access to the sea. It is usually used as a proxy for high transportation costs and it is expected to bear a negative sign.

"COLONIAL LINK" is a bilateral dummy variable. It is taken from the CEPII and captures the historical relations as potential determinants FDI. It describes the existence of a relationship between two countries, in which one has governed the other in the past and as such has played a significant role in the formulation of the current state of institutions, while also overall geopolitical situation. The issue was analyzed in chapter 3.

See Frieden (1989, 1994) and Abderezzak (2008) for the relation between FDI and colonial links. There is no clear expectation regarding the sign of this variable.

$\varepsilon_{it}$  is a white-noise error term,  $i$  is the country and  $t$  is the time period.

### ***5.5 Panel Data Analysis***

The advantages of using panel data are well recognized. First, the much larger degree of freedom in comparison with cross-sectional or time-series studies increases the precision of regression estimates. Second, it can address omitted variable bias and heterogeneity problems that often arise in cross-sectional investigations. This is important because it is likely that there will be a number of country-specific factors that cannot be directly incorporated into the regression equations. Third, it has greater capacity for capturing the complexity of social behaviour than a single cross-section of time-series data. The gravity model introduces the basic features of both the source and the target countries in the empirical analysis, therefore has the ability to study how these features interact given the dependent variable. It has been successfully tested for its usefulness in explaining bilateral trade and FDI flows.

The data covers a period of 16 years (1990-2005).<sup>13</sup> The country sample includes 16 target (Bosnia, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, FYROM, Poland, Romania, Russia, Slovakia, Slovenia and Ukraine) and 24 source countries (Australia, Austria, Belgium, Canada, China, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States).

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<sup>13</sup> The data is rarely available for the entire period for all the countries and for this reason unbalanced panel data was used.

Separate regressions were estimated for the level of the governance variables of the target country and for the difference between source and target country of the same variables. The first set of regressions (table 2), which includes the level of the governance variables for the target country, estimate the impact of governance on FDI. A positive correlation between governance variables<sup>14</sup> and FDI is expected which implies that good governance is associated with high level of FDI.

The second set of regressions (table 3) includes the difference in governance variables between source and target country. It can be argued that the difference in governance levels between the source and target countries can create significant barriers to FDI. Habib and Zurawicki (2002), for example, argue that inability to handle corruption makes FDI challenging for the firms from less corrupt countries whereas exposure to corruption at home provides a learning experience preparing the firms to handle them in abroad. Consequently firms from less (more) corrupt countries are expected to invest in relatively less (more) corrupt countries. The same logic may apply to the other governance variables. Therefore, a negative correlation between the difference in level of governance in source and target countries and FDI is expected.<sup>15</sup>

The regression equation was estimated by using the Pooled Least Squares method and Random Effects method. The Fixed Effect method is unsuitable for the particular empirical model as it eliminates time invariant variables such as “distance”, “colonial link” and “landlockness”. Distance especially is among the basic elements of gravity modelling. Potential Heteroskedasticity problems were faced by using the Newey-West Heteroskedasticity and Autocorrelation Consistent Standard Errors. The variables were tested for Stationarity (see table 4) by adopting the Levin, Lee and Chu (2002) and the Philips Perron methods with a Newey West bandwidth selection which confirm the stationarity of the studied variables with the exception of “democratic accountability” and

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<sup>14</sup> High values indicate better governance.

<sup>15</sup> Indeed, by using FDI flows from 7 high income countries to 89 countries, Habib and Zurawicki (2002) found a negative correlation between the two variables.

“democratic accountability difference” variables. “Bureaucratic quality” variable is non-stationary with the “PP - Fisher Chi-square” method whereas stationary with the “Levin, Lee and Chu” method. The results for these variables, therefore, should be interpreted with caution. For the stationarity tests, the appropriate number of lags was selected by using the Schwarz Information Criterion. Because governance variables are highly correlated with each other, separate regressions were estimate for each variable. The EU links and landlocked dummy variables are also highly correlated with some of the governance variables. In order to avoid multicollinearity problems they are not included in the same regression.

### ***5.6 Empirical Results and Discussion***

The panel data results in tables 2 and 3 (Appendix) suggest that in the case of selected transition countries, poor governance environment is associated with high levels of FDI. In the case of Pooled Least Squares method, all coefficients are negative and (apart from the ‘Government Stability’) statistically significant. Because high values indicate better governance, negative coefficients imply a positive link between poor governance and FDI. In the case of Random Effects model, apart from ‘Democratic Accountability’ and ‘Socioeconomic Conditions’ all coefficients are negative and statistically significant. The coefficient for ‘Democratic Accountability’ is positive but statistically insignificant whereas the coefficient for ‘Socioeconomic Conditions’ is positive and statistically significant. Overall these results imply that poor governance and FDI are positively related.

The results presented in table 3 support the results in table 2. All the coefficients are positive and (apart from ‘Government Stability’) statistically highly significant which suggests that the greater the absolute difference in the level of governance between the source and target countries, the greater the FDI stock for the target country. This implies

that firms from good governance countries that decide to invest in the transition economies tend to invest in those countries which have poor governance.

Given the above results that contradict most of the relevant literature, the first question that has to be answered is whether these results are specific to the transition countries. Indeed a number of authors have suggested that due to the problems that are very specific to the transition countries, such results should be expected. Cuervo-Cazurra (2008), for example, argues that the transition process from socialism to capitalism requires the dismantling of previous institutions and development of new ones that takes place simultaneously. While the old system is interrupted, the new system is not fully implemented, which creates an institutional gap and high transaction costs. In this process, there are no clear rules or institutions to guide investors. Under these circumstances, poor governance such as corruption may have a positive influence on FDI. Although corruption will still increase costs and uncertainty, it will allow firms to circumvent poorly designed regulations and misplaced or nonexistent institutions and compensate losses. Cuervo-Cazurra's empirical work suggests that corruption has a smaller negative impact on FDI in transition countries than in other countries.<sup>16</sup> This view attempts to explain why investors invest in the transition countries with higher corruption. Assuming that all transition countries experience similar transition specific problems, countries with higher corruption provide better opportunities for the foreign firms.

There are a number of drawbacks of this argument. First, although the above argument may explain why investors prefer more corruption to less corruption in the transition countries, it does not explain why the transition countries as a whole attract so much FDI despite their transition problems. Corruption does not increase the benefits but only compensates losses from the transition specific problems. Second, as it was shown earlier

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<sup>16</sup> By focusing on the different types of corruption Cuervo-Cazurra also suggested that although both "arbitrary" and "pervasive" corruption have a negative impact on FDI, pervasive (arbitrary) corruption has a larger (smaller) negative impact on FDI in transition countries than in other countries.

in this article, the transition countries in the sample are experiencing a worsening of corruption but improvement in the other governance indicators between 1990 and 2003. Therefore Cuervo-Cazurra's argument is less relevant for the transition countries under consideration. Due to the fact that the rest of the governance indicators are improving, corruption has fewer imperfections to grease. Moreover a positive link has been identified not only between FDI and corruption but also between FDI and other governance indicators. Third, for Cuervo-Cazurra's arguments to hold, the positive link between FDI and high levels of corruption must be unique for the transition countries. Although limited, a few empirical studies have found no negative link between corruption and FDI in non-transition countries (see Wheeler and Mody, 1992; Hines, 1995; Habib & Zurawicky, 2002; Henisz, 2000; Moskalev, 2007). This implies that such results may not be specific to the transition countries. Zhu (2007) suggests that in relatively less democratic and less developed countries foreign and domestic firms compete to pay bribes to get business contracts. Because foreign firms have the flexibility to adjust to the local investment environment and get business contracts, corruption is not a major deterrent to FDI. Therefore not only in the transition countries but also in other developing countries such results should be expected. The same logic is perhaps pertinent to other governance variables.

Since the above results are not unique and cannot be explained by the specific problems of the transition countries, alternative explanations have to be found. By using a panel gravity model and covering 30 OECD source countries and 229 OECD and non-OECD target countries for the period 1996 to 2004, Moskalev's (2007) work produces results that are similar to the produced results here and provides an alternative explanation. In his view, FDI originates in governance-rich OECD countries and flows to low income countries with poor governance as non-OECD countries offer better investment opportunities despite their poorer governance. In other words, poor governance is compensated by higher investment opportunities in non-OECD countries. Moreover, his empirical work shows that when governance in target countries improves (deteriorates), FDI inflows increase (decrease).

There are a number of reasons to doubt Moskalev's conclusions validity. First, Moskalev's arguments imply that FDIs flow from better governed high income countries to poorly governed low income countries. A simple observation of FDI figures, however, disputes this proposition. Data from World Investment Report suggests that the share of 'developed countries' in total FDI stock between 1980 and 2006 fluctuates between 67 and 79 percent (75 percent in 1980, 79 percent in 1990 and 71 percent in 2006) and there is no tendency for this ratio to decline. In other words, developed countries receive most of FDI inflows. Moreover a simple correlation between per capita income and the share of FDI stock in GDP in the sample countries reveals a positive link between them (see figure 4a in Appendix). If Slovenia is excluded (an outlier country with very high per capita income and low FDI) from the sample the correlation becomes stronger (R-bar-square becomes 0.357). In the sample used in the analysis here, therefore, relatively high-income transition countries receive more FDI.<sup>17</sup> Therefore, even if Moskalev's argument was to be considered accurate for his own sample, it is clearly inaccurate for the sample used in the current analysis. Second, the gravity model indirectly controls per capita GDP as the size of total GDP depends on the size of population and per capita GDP. Larger markets attract larger FDI and richer countries have larger markets. Third, despite what Moskalev argues, his empirical work provides weak evidence for the link between the improvement of governance in target country and increase in FDI flows. Out of six governance indicators, only change in 'voice and accountability' and change in 'regulatory quality' have marginally significant coefficients at 10 percent level. This implies that an improvement in governance does not significantly improve incoming FDI. Fourth, Moskalev's work involves 30 OECD source countries and 229 OECD and non-OECD target countries. In other words, a negative correlation between governance and FDI reflects the fact that the better-governed OECD countries invest more into weakly governed non-OECD countries. However, in this work (apart from Russia) source and

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<sup>17</sup> The same exercise for 175 countries produces similar results (see figure 4a). Although the R-bar-square is low, it remains positive which suggests that high income countries receive more FDI.



target countries are clearly separated. In other words, the current research study excludes FDI from the source countries into the source countries. Therefore a negative correlation between governance and FDI in the current research suggests that the source countries with good governance prefer to invest in poor governance countries.

The above arguments imply the possibility that poor governance itself may be a source of better investment opportunities for MNEs, cannot be ruled out. Poor governance may be a source of rent not only for corrupt politicians and policy makers in the target countries but also for large MNEs. As argued earlier, in a relation-based system, the political system tends to be dominated by powerful rulers and policies tend to favour big business which provides fertile ground for large MNEs that have plenty of financial sources for their rent seeking activities. Larger MNEs tend to be located in better governed developed countries and this may explain why good governance countries tend to invest more in poor governance countries. Such arguments are not new. Many scholars have argued that undemocratic and authoritarian regimes in developing countries provide investors with higher returns and attract more FDI (Jessup, 1999; Oneal 1994). Authoritarian regimes may provide MNEs with better entry deals and lower-cost workforce (Rodrik 1999). Moreover, MNEs do not only strategically adjust to the local environment in order to get business contracts but also actively try to influence the local environment to achieve favorable conditions. They do not passively respond to the local market conditions but adopt proactive policies in their pursuit to control markets. This involves lobbying as well as other illegal activities such as corrupting policy makers and influencing the legal system (state capture), which was also met empirically and discussed in chapter 4. In the case of the transition countries Subasat and Bellos (forthcoming) suggest that causality runs from FDI to corruption. In other words FDI causes corruption in the target transition countries.

It is widely recognised that the US MNEs routinely engaged in bribery activities until the United States' Foreign Corrupt Practices Act of 1977 criminalized the corruption of foreign officials (Hines 1995). The OECD also has moved to criminalize "commissions"

to foreign officials under the 1997 OECD Convention on Combating Bribery of Foreign Public Officials, in recognition of the connection between foreign direct investment and corruption. Therefore while MNEs involvement in corrupt practices is not a matter dispute, it is often assumed that given the high levels of local corruption such involvement is a necessity rather than preference for the MNEs. The empirical results here suggest, however, that there is no reason to believe that MNEs prefer less corruption to more corruption at least in the case of the studied transition countries.

### *5.7 Conclusions*

The empirical research described in this chapter aimed to investigate the link between governance and foreign direct investments in the case of 16 transition countries by using a panel gravity model. The results suggest that the lack of good governance does not deter, in fact encourages foreign direct investment. Not only countries that are poorly governed receive more FDI but also firms from good governance countries tend to invest in poor governance countries. This implies that the difference in governance levels between the source and target countries is not an impediment to FDI. The firms from good governance countries with limited exposure to poor governance at home (thus limited learning experience) find it both easy to handle and beneficial to invest in poor governance environments.

Although there is some recognition in the literature that in the case of transition countries corruption may compensate bad governance and may not deter FDI, the empirical results presented show that corruption goes well beyond greasing imperfections and becomes a significant determinant of FDI. The results actually suggest that in transition countries, MNEs invest extensively in an environment characterised by increasing corruption levels and low but improving governance. This fact is inconsistent with the “grease the wheels” view according to which corruption is supposed to compensate poor governance, which is not the case here. As was discussed earlier, most transition countries experienced an

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improvement in their governance indicators except corruption. Therefore, increase in corruption cannot be assumed to contribute to FDI as higher level of corruption has fewer imperfections to grease.

These results challenge the established view of corruption as a necessary evil in the case of the selected transition countries and the view that good governance is a major determinant of FDI. The issue of corruption will be more extensively studied in the following chapter.

## *Appendix of Chapter 5 Tables of Results*

*Table 1. Descriptive Statistics for Variables*

	Mean	Median	Maximum	Minimum	Obs.
<b>FDI STOCK</b>	440.767	55.8	14787.6	0	2339
<b>GDP (S)</b>	1.07E+12	2.59E+11	1.11E+13	6.10E+09	4625
<b>GDP (T)</b>	4.08E+10	1.69E+10	3.86E+11	1.12E+09	4580
<b>DISTANCE</b>	2.497.503	1580.9	16152.8	59.62	4640
<b>TRADE POLICY</b>	72.033	69.6	100	0	2861
<b>EU LINKS</b>	0.378	0	1	0	4640
<b>LANDLOCK</b>	0.321	0	1	0	4640
<b>COLONIAL LINK</b>	0.055	0	1	0	4640
<b>BUR. QUALITY</b>	2.502	3	4	0.75	2538
<b>LAW AND ORDER</b>	4.548	5	6	0	2538
<b>DEM. ACCOUNTABILITY</b>	4.669	5	6	1.667	2538
<b>SOC. CONDITIONS</b>	4.995	5	7.5	1	2538
<b>GOV. STABILITY</b>	7.728	8	11.5	1.25	2538
<b>CORRUPTION</b>	3.490	3.25	5	1	2538
<b>BUR. QUALITY DIFFERENCE</b>	1.086	1	3.25	-3	2525
<b>LAW AND ORDER DIFFERENCE</b>	0.816	1	6	-3	2525
<b>DEM. ACC. DIFFERENCE</b>	0.696	1	4.333	-5	2525
<b>SOCIOECONOMIC DIFFERENCE</b>	2.651	2.583	10	-5	2525
<b>GOV. STABILITY DIFFERENCE</b>	0.781	0.667	8.75	-5.25	2525
<b>CORRUPTION DIFFERENCE</b>	0.933	1	5	-4	2525

Table 2: Regression results for the governance variables.

	Pooled Least Squares						Random Effects					
	1	2	3	4	5	6	1	2	3	4	5	6
<b>Constant</b>	-28.3*** (-8.1)	-22.6*** (-5.7)	-27.3*** (-7.4)	-29.0*** (-8.4)	-27.4*** (-7.0)	-27.9*** (-7.7)	-37.9*** (-12.3)	-32.4*** (-10.2)	-42.9*** (-14.0)	-39.2*** (-13.3)	-35.7*** (-11.3)	-33.0*** (-10.2)
<b>GDP Source</b>	0.66*** (6.24)	0.65*** (6.22)	0.65*** (6.16)	0.66*** (6.16)	0.66*** (6.10)	0.65*** (6.11)	0.73*** (9.27)	0.69*** (8.78)	0.78*** (9.99)	0.71*** (9.31)	0.71*** (9.03)	0.67*** (8.40)
<b>GDP Target</b>	1.17*** (11.5)	1.12*** (11.1)	1.10*** (10.8)	1.11*** (10.6)	1.10*** (10.5)	1.09*** (10.6)	1.50*** (14.8)	1.39*** (13.8)	1.49*** (14.6)	1.37*** (13.5)	1.41*** (13.7)	1.26*** (11.8)
<b>Distance</b>	-1.47*** (-10.9)	-1.46*** (-10.7)	-1.44*** (-10.6)	-1.43*** (-10.7)	-1.44*** (-10.5)	-1.44*** (-10.5)	-1.56*** (-10.7)	-1.49*** (-10.3)	-1.56*** (-10.6)	-1.48*** (-10.4)	-1.51*** (-10.2)	-1.47*** (-9.90)
<b>Trade</b>	0.14 (1.05)	0.28** (2.01)	0.17 (1.26)	0.22* (1.72)	0.09 (0.61)	0.25* (1.77)	0.19*** (2.71)	0.21* (3.11)	0.20*** (2.74)	0.16** (2.25)	0.24*** (3.43)	0.23*** (3.41)
<b>EU links Membership</b>	0.50*** (2.65)	0.12 (0.58)		0.28 (1.34)	0.29 (1.42)	0.32* (1.65)	0.81*** (9.01)	0.58*** (6.09)		0.89*** (9.83)	0.92*** (10.3)	0.73*** (8.15)
<b>Land lock</b>			-0.17 (-0.63)		-0.37 (-1.37)	-0.11 (-0.41)			-0.34 (-1.33)		-0.47* (-1.85)	-0.13 (-0.52)
<b>Colonial link</b>	0.54 (1.49)	0.62 (1.71)*	0.60 (1.73)*	0.65* (1.82)	0.58 (1.63)	0.61* (1.73)	0.71 (1.30)	0.84 (1.55)	0.73 (1.33)	0.83 (1.57)	0.70 (1.28)	0.79 (1.42)
<b>Bureaucratic Quality</b>	-2.19*** (-3.80)						-2.17*** (-4.26)					
<b>Law and Order</b>		-4.36*** (-4.68)						-3.02* (-7.84)				
<b>Democratic Accountability</b>			-1.32** (-2.06)						0.49 (1.54)			
<b>Socioeconomic Conditions</b>				-0.81** (-1.97)						0.52*** (3.13)		
<b>Government Stability</b>					-0.97 (-1.42)						-1.54*** (-5.72)	
<b>Control of Corruption</b>						-1.51*** (-4.34)						-1.20*** (-7.63)
<b>DF</b>	1352	1352	1352	1352	1352	1352	1336	1336	1336	1336	1336	1336
<b>R<sup>2</sup></b>	0.452	0.458	0.439	0.438	0.438	0.448	0.269	0.291	0.214	0.267	0.278	0.290
<b>Wald joint</b>	284.7 [0.00]	290.5 [0.00]	274.2 [0.00]	258.6 [0.00]	262.5 [0.00]	333.8 [0.00]	538.6 [0.00]	596.2 [0.00]	410.2 [0.00]	536.1 [0.00]	560.0 [0.00]	589.9 [0.00]
<b>Wald Dummy</b>	65.59 [0.00]	32.74 [0.00]	55.25 [0.00]	70.66 [0.00]	50.26 [0.00]	60.16 [0.00]	151.1 [0.00]	104.5 [0.00]	197.0 [0.00]	177.7 [0.00]	127.9 [0.00]	104.7 [0.00]
<b>AR(1)</b>	9.17 [0.00]	9.16 [0.00]	9.31 [0.00]	9.32 [0.00]	9.14 [0.00]	9.10 [0.00]	15.16 [0.00]	14.77 [0.00]	17.26 [0.00]	16.07 [0.00]	14.71 [0.00]	14.23 [0.00]
<b>AR(2)</b>	8.52 [0.00]	8.47 [0.00]	8.64 [0.00]	8.62 [0.00]	8.54 [0.00]	8.49 [0.00]	1.87 [0.06]	1.55 [0.12]	3.95 [0.00]	3.11 [0.00]	2.18 [0.03]	1.34 [0.18]

Notes: The dependent variable is the bilateral FDI stock from the source to target country. \*significant at the 10% level; \*\*significant at the 5% level; \*\*\* significant at the 1% level. Variables are in logarithmic form. Figures in parentheses are t-statistics. DF: degree of freedom.

Table 3: Regression results for the difference in governance variables between source and target country.

	Pooled Least Squares						Random Effects					
	1	2	3	4	5	6	1	2	3	4	5	6
<b>Constant</b>	-33.3*** (-10.8)	-30.1*** (-9.25)	-33.8*** (-10.7)	-35.1*** (-11.3)	-29.6*** (-8.49)	-31.7*** (-9.6)	-40.9*** (-14.5)	-37.9*** (-14.3)	-40.6*** (-14.3)	-40.2*** (-15.0)	-40.4*** (-13.5)	-36.9*** (-12.7)
<b>GDP Source</b>	0.64*** (6.62)	0.59*** (5.76)	0.70*** (6.83)	0.66*** (6.69)	0.65*** (6.12)	0.66*** (6.31)	0.71*** (9.65)	0.67*** (9.82)	0.73*** (9.92)	0.71*** (10.3)	0.73*** (9.31)	0.69*** (9.24)
<b>GDP Target</b>	1.21*** (13.2)	1.10*** (12.5)	1.17*** (12.7)	1.16*** (12.8)	1.10*** (10.6)	1.08*** (11.1)	1.47*** (15.5)	1.39*** (15.5)	1.44*** (14.9)	1.44*** (15.9)	1.45*** (14.2)	1.30*** (13.0)
<b>Distance</b>	-1.43*** (-11.8)	-1.37*** (-10.1)	-1.36*** (-11.2)	-1.38*** (-10.9)	-1.43*** (-10.5)	-1.32*** (-10.4)	-1.51*** (-11.2)	-1.48*** (-11.6)	-1.49*** (-10.8)	-1.49*** (-11.6)	-1.52*** (-10.4)	-1.43*** (-10.1)
<b>Trade</b>	0.11 (0.90)	0.21 (1.49)	0.05 (0.42)	0.55*** (4.09)	0.05 (0.41)	0.25* (1.81)	0.18*** (2.60)	0.18** (2.54)	0.17** (2.72)	0.19*** (2.63)	0.20*** (2.88)	0.21*** (3.08)
<b>EU links Membership</b>	0.69*** (4.03)	0.23 (1.30)	0.81*** (4.22)	0.38** (2.15)	0.24 (1.19)	0.43** (2.29)	0.84*** (9.45)	0.74*** (8.17)	0.98*** (10.3)	0.77*** (8.27)	0.84*** (9.44)	0.83*** (9.38)
<b>Land lock</b>		0.08 (0.32)	-0.14 (-0.57)	0.32 (1.34)	-0.28 (-1.08)	-0.02 (-0.08)		-0.18 (-0.86)	-0.24 (-1.03)	-0.18 (-0.85)	-0.40 (-1.62)	-0.13 (-0.56)
<b>Colonial link</b>	1.31*** (4.11)	1.26*** (4.07)	1.17*** (3.93)	1.48*** (4.59)	0.59* (1.65)	1.20*** (3.98)	1.32** (2.59)	0.99** (2.08)**	0.91* (1.76)	0.98** (2.04)	0.69 (1.27)	1.07** (2.05)
<b>Bureaucratic Quality</b>	3.20*** (8.75)						2.42*** (7.02)					
<b>Law and Order</b>		5.15*** (8.98)						2.01*** (6.87)				
<b>Democratic Accountability</b>			2.65*** (8.66)						0.89*** (3.68)			
<b>Socioeconomic Conditions</b>				2.50*** (9.85)						0.66*** (4.44)		
<b>Government Stability</b>					0.15 (0.29)						0.82*** (3.88)	
<b>Control of Corruption</b>						1.99*** (7.44)						1.05*** (7.28)
<b>N</b>	1352	1352	1352	1352	1352	1352	1336	1336	1336	1336	1336	1336
<b>R<sup>2</sup></b>	0.516	0.529	0.485	0.510	0.436	0.486	0.290	0.296	0.273	0.282	0.269	0.291
<b>Wald joint</b>	428.1 [0.00]	429.8 [0.00]	504.4 [0.00]	472.4 [0.00]	257.1 [0.00]	391.1 [0.00]	598.5 [0.00]	624.0 [0.00]	552.7 [0.00]	585.9 [0.00]	538.1 [0.00]	599.5 [0.00]
<b>Wald Dummy</b>	116.1 [0.00]	85.52 [0.00]	115.5 [0.00]	128.2 [0.00]	72.15 [0.00]	92.2 [0.00]	210.0 [0.00]	205.8 [0.00]	203.1 [0.00]	225.2 [0.00]	182.0 [0.00]	160.4 [0.00]
<b>AR(1)</b>	8.87 [0.00]	8.76 [0.00]	8.41 [0.00]	8.99 [0.00]	9.20 [0.00]	8.63 [0.00]	15.19 [0.00]	16.67 [0.00]	15.85 [0.00]	17.23 [0.00]	15.44 [0.00]	15.13 [0.00]
<b>AR(2)</b>	8.15 [0.00]	7.84 [0.00]	7.78 [0.00]	8.09 [0.00]	8.58 [0.00]	7.97 [0.00]	1.82 [0.06]	3.46 [0.00]	2.96 [0.00]	3.69 [0.00]	2.511 [0.01]	2.02 [0.04]

Notes: The dependent variable is the bilateral FDI stock from the source to target country. \*significant at the 10% level; \*\*significant at the 5% level; \*\*\* significant at the 1% level. Variables are in logarithmic form. Figures in parentheses are t-statistics. DF: degree of freedom.

Table 4: Stationarity Test for the Variables

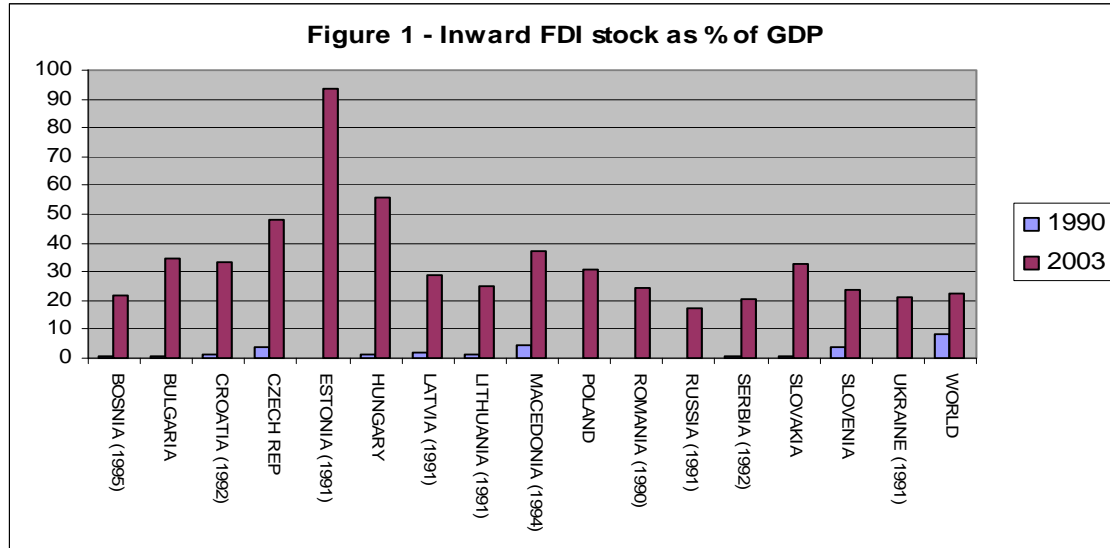
Variable	Method	Statistic	Prob	Cross Sections	Obs
FDISTOCK	Levin, Lee and Chu	-225.808	0.0000	255	1888
	PP - Fisher Chi-square	1123.45	0.0000	256	1953
GDPS	Levin, Lee and Chu	-386.147	0.0000	290	4101
	PP - Fisher Chi-square	749.482	0.0000	290	4335
GDPT	Levin, Lee and Chu	-115.986	0.0000	290	4103
	PP - Fisher Chi-square	2856.94	0.0000	290	4290
TRADET	Levin, Lee and Chu	-213.736	0.0000	261	2437
	PP - Fisher Chi-square	1007.54	0.0000	261	2508
CORT	Levin, Lee and Chu	-159.888	0.0000	267	2240
	PP - Fisher Chi-square	648.248	0.0005	267	2271
CORDIF	Levin, Lee and Chu	-428.080	0.0000	266	2168
	PP - Fisher Chi-square	601.239	0.0198	266	2254
BURQUALT	Levin, Lee and Chu	-1.6E+15	0.0000	162	1196
	PP - Fisher Chi-square	372.874	0.5932	190	1612
BURQUALDIF	Levin, Lee and Chu	na	na	na	na
	PP - Fisher Chi-square	541.689	0.0003	216	1875
LAWT	Levin, Lee and Chu	-3.1E+14	0.0000	190	1889
	PP - Fisher Chi-square	480.335	0.0004	190	1951
LAWDIF	Levin, Lee and Chu	na	na	na	na
	PP - Fisher Chi-square	515.682	0.0147	224	2079
SOCECOT	Levin, Lee and Chu	-496.700	0.0000	267	2106
	PP - Fisher Chi-square	675.227	0.0000	267	2271
SOCECDIF	Levin, Lee and Chu	-111.398	0.0000	267	2130
	PP - Fisher Chi-square	956.009	0.0000	267	2258
GOVSTABT	Levin, Lee and Chu	-353.787	0.0000	267	2184
	PP - Fisher Chi-square	654.485	0.0003	267	2271
GOVSTABDIF	Levin, Lee and Chu	-176.133	0.0000	267	2181
	PP - Fisher Chi-square	892.108	0.0000	267	2258
DEMACCT	Levin, Lee and Chu	-1.3E+15	0.0000	180	1829
	PP - Fisher Chi-square	144.684	1.00	180	1923
DEMACCDIF	Levin, Lee and Chu	na	na	na	na
	PP - Fisher Chi-square	292.586	1.00	203	2002



Table 5: Matrix of bivariate correlations among the set of explanatory variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
GDP Source (1)	1	0.048	0.398	-0.021	0.000	-0.019	-0.054	-0.061	-0.071	-0.040	-0.024	0.016	-0.069	0.070	0.148	-0.103	0.018	-0.105	-0.054
GDP Target (2)	0.048	1	0.062	-0.057	-0.220	0.121	-0.010	0.044	0.034	0.015	0.091	-0.125	-0.059	-0.013	0.031	-0.004	-0.093	0.043	0.078
Distance (3)	0.398	0.062	1	-0.005	-0.027	-0.137	-0.295	-0.121	-0.106	-0.062	-0.099	0.039	-0.060	0.102	0.100	-0.056	0.092	-0.001	-0.058
Trade (4)	-0.021	-0.057	-0.005	1	0.193	-0.084	0.045	0.043	0.158	0.142	0.289	0.149	0.227	-0.030	-0.086	-0.086	-0.231	-0.115	-0.141
EU-Links (5)	0.000	-0.220	-0.027	0.193	1	-0.008	0.024	0.190	-0.266	0.503	0.150	0.348	0.002	-0.181	0.051	-0.342	-0.004	0.016	-0.121
Landlock (6)	-0.019	0.121	-0.137	-0.084	-0.008	1	-0.114	0.550	0.389	0.187	0.422	-0.321	0.282	-0.426	-0.253	-0.101	-0.356	0.239	-0.177
Colonial Link (7)	-0.054	-0.010	-0.295	0.045	0.024	-0.114	1	-0.082	-0.012	0.012	-0.021	0.021	-0.012	-0.107	-0.127	-0.164	-0.168	-0.030	-0.147
Bureaucratic Quality (8)	-0.061	0.044	-0.121	0.043	0.190	0.550	-0.082	1	0.453	0.458	0.539	-0.083	0.546	-0.787	-0.318	-0.254	-0.426	0.044	-0.378
Law And Order (9)	-0.071	0.034	-0.106	0.158	-0.266	0.389	-0.012	0.453	1	0.179	0.375	-0.141	0.600	-0.342	-0.588	-0.081	-0.424	-0.125	-0.316
Democratic Accountability (10)	-0.040	0.015	-0.062	0.142	0.503	0.187	0.012	0.458	0.179	1	0.155	0.167	0.442	-0.382	-0.178	-0.601	-0.128	-0.028	-0.338
Socioeconomic Conditions (11)	-0.024	0.091	-0.099	0.289	0.150	0.422	-0.021	0.539	0.375	0.155	1	-0.313	0.213	-0.414	-0.260	-0.078	-0.711	0.115	-0.140
Government Stability (12)	0.016	-0.125	0.039	0.149	0.348	-0.321	0.021	-0.083	-0.141	0.167	-0.313	1	0.007	0.052	0.044	-0.101	0.273	-0.545	-0.071
Control Of Corruption (13)	-0.069	-0.059	-0.060	0.227	0.002	0.282	-0.012	0.546	0.600	0.442	0.213	0.007	1	-0.418	-0.313	-0.255	-0.324	-0.143	-0.604
Bureaucratic Quality Difference (14)	0.070	-0.013	0.102	-0.030	-0.181	-0.426	-0.107	-0.787	-0.342	-0.382	-0.414	0.052	-0.418	1	0.598	0.571	0.645	-0.090	0.654
Law And Order Difference (15)	0.148	0.031	0.100	-0.086	0.051	-0.253	-0.127	-0.318	-0.588	-0.178	-0.260	0.044	-0.313	0.598	1	0.358	0.620	-0.003	0.553
Democratic Accountability Difference (16)	-0.103	-0.004	-0.056	-0.086	-0.342	-0.101	-0.164	-0.254	-0.081	-0.601	-0.078	-0.101	-0.255	0.571	0.358	1	0.384	-0.028	0.639
Socioeconomic Conditions Difference (17)	0.018	-0.093	0.092	-0.231	-0.004	-0.356	-0.168	-0.426	-0.424	-0.128	-0.711	0.273	-0.324	0.645	0.620	0.384	1	-0.031	0.517
Government Stability Difference (18)	-0.105	0.043	-0.001	-0.115	0.016	0.239	-0.030	0.044	-0.125	-0.028	0.115	-0.545	-0.143	-0.090	-0.003	-0.028	-0.031	1	0.057
Control Of Corruption Difference (19)	-0.054	0.078	-0.058	-0.141	-0.121	-0.177	-0.147	-0.378	-0.316	-0.338	-0.140	-0.071	-0.604	0.654	0.553	0.639	0.517	0.057	1

## FIGURES

*Figure 1. Inward FDI Stock as % of GDP*

Note: The numbers in brackets show the year that the data is available if data for year 1990 is unavailable.

Figure 2a. Bureaucratic Quality

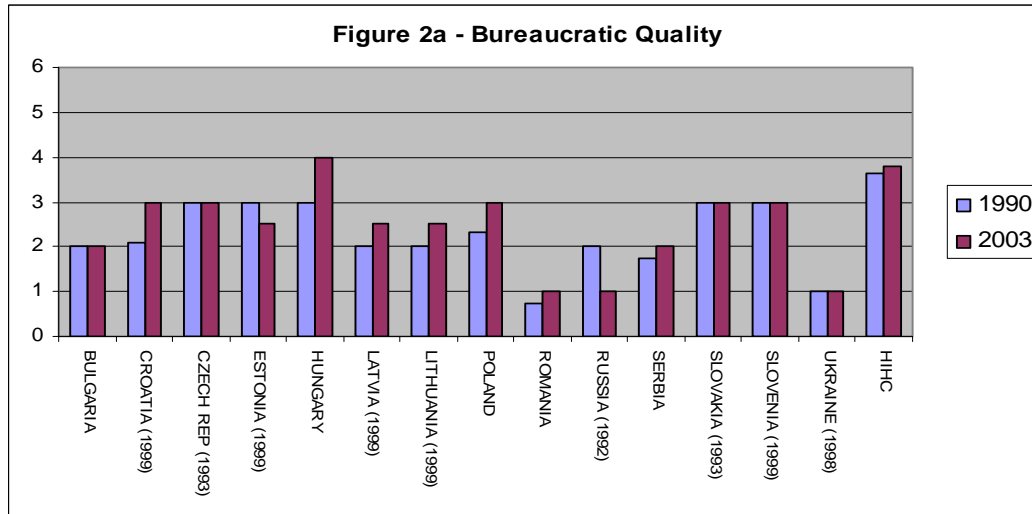


Figure 2b. Law and Order

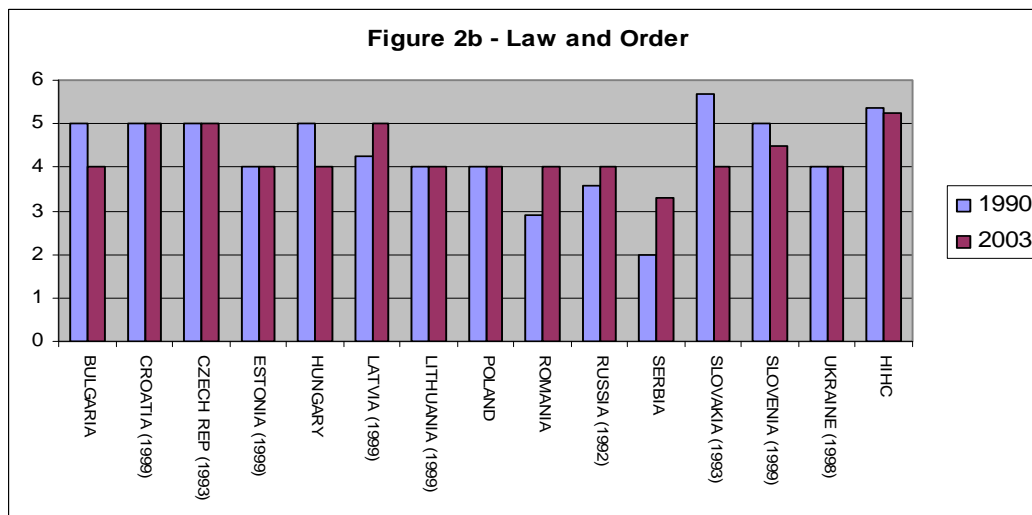


Figure 2c. Democratic Accountability

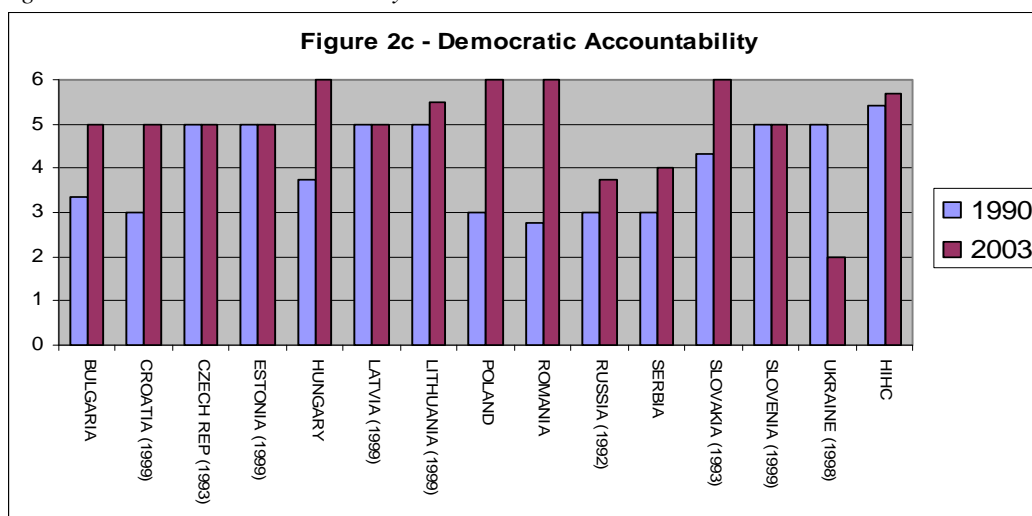


Figure 2d. Socio Economic Conditions

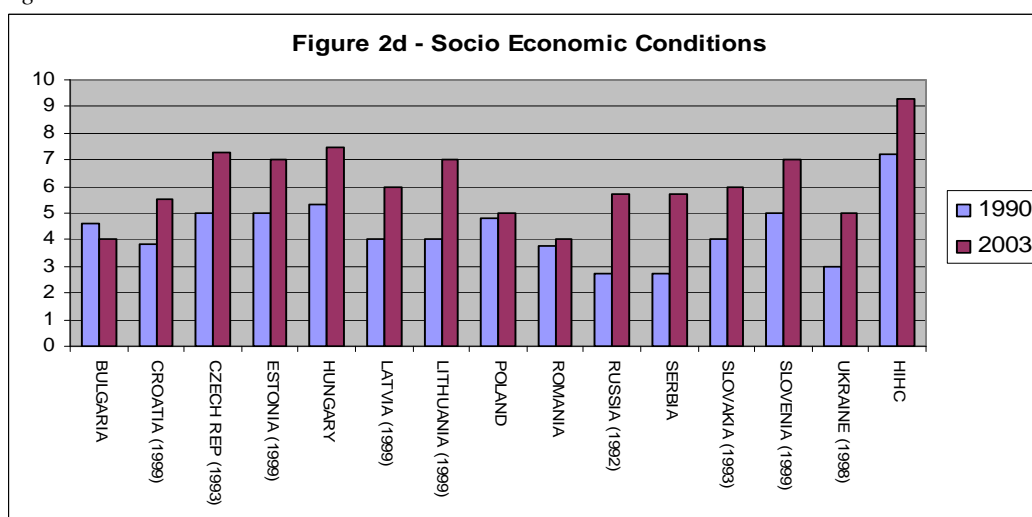


Figure 2e. Government Stability

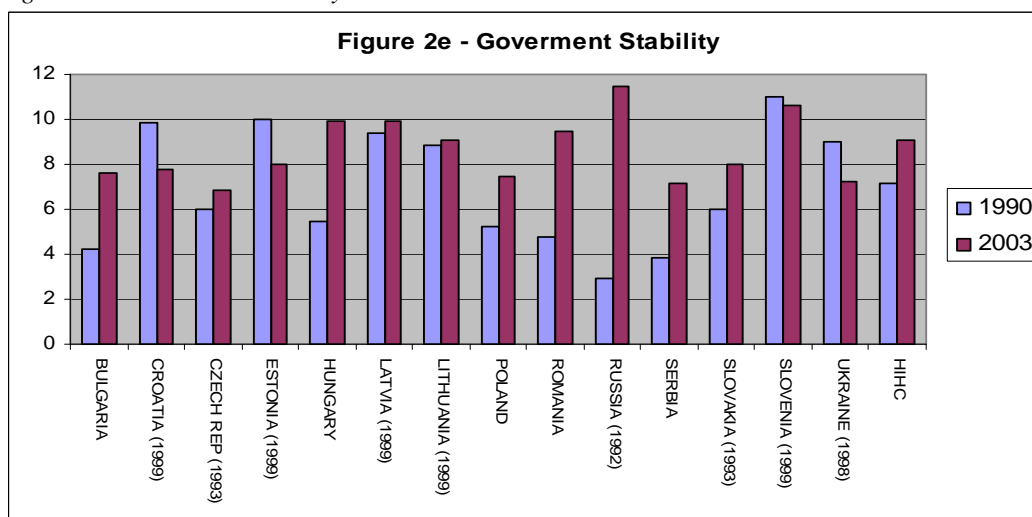
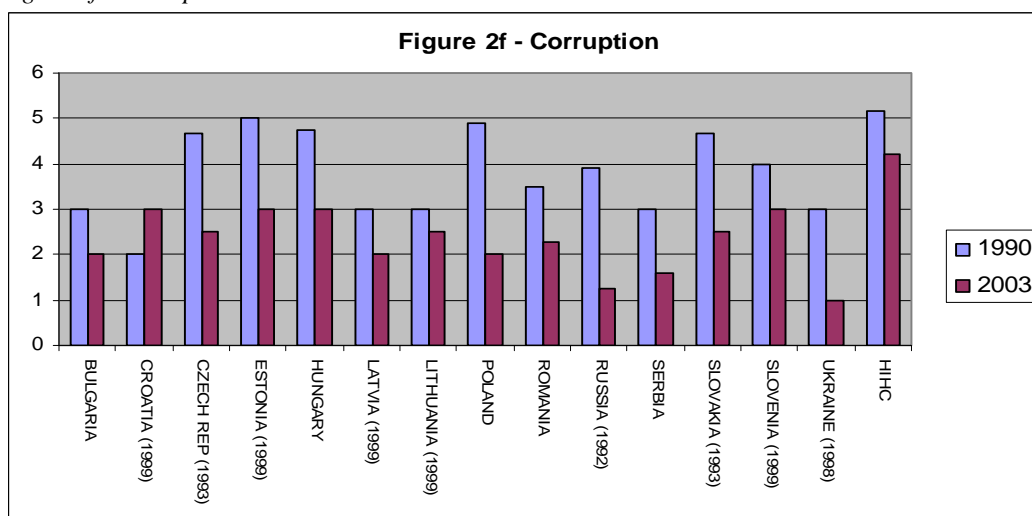


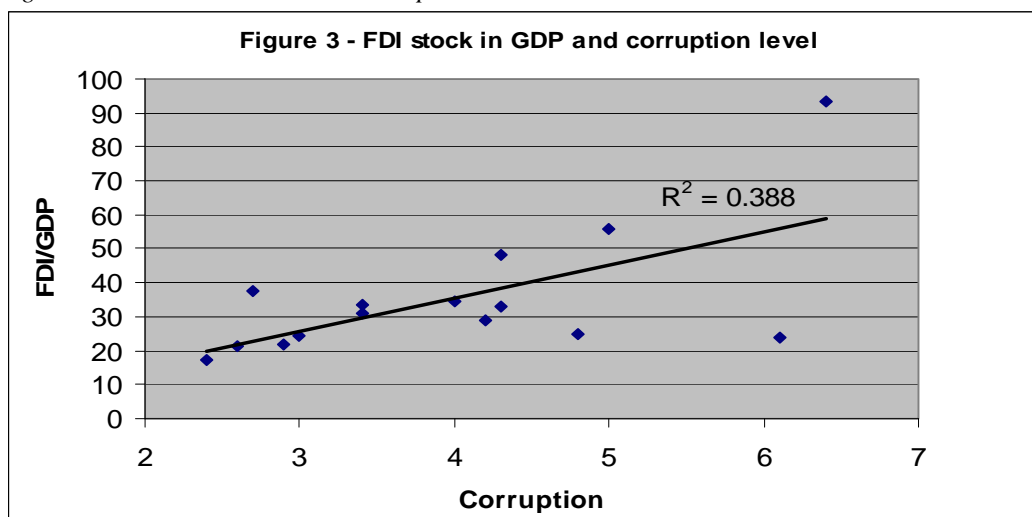
Figure 2f. Corruption



Note: High values indicate better governance. The numbers in brackets show the year that the data is available if data for year 1990 is not available.

Source: the PRS Group International Country Risk Guide.

Figure 3. FDI stock in GDP and Corruption level



Note: High values for corruption indicate lower corruption level.

Source: World Investment Report and the PRS Group International Country Risk Guide

Figure 4a. Per Capita GDP and Inward FDI stock as a percentage of GDP (Transition Countries)

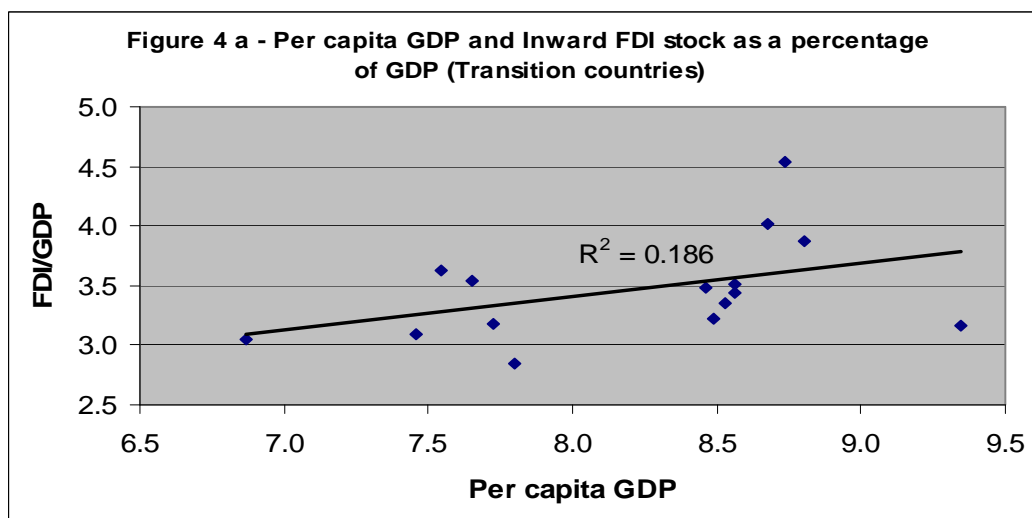
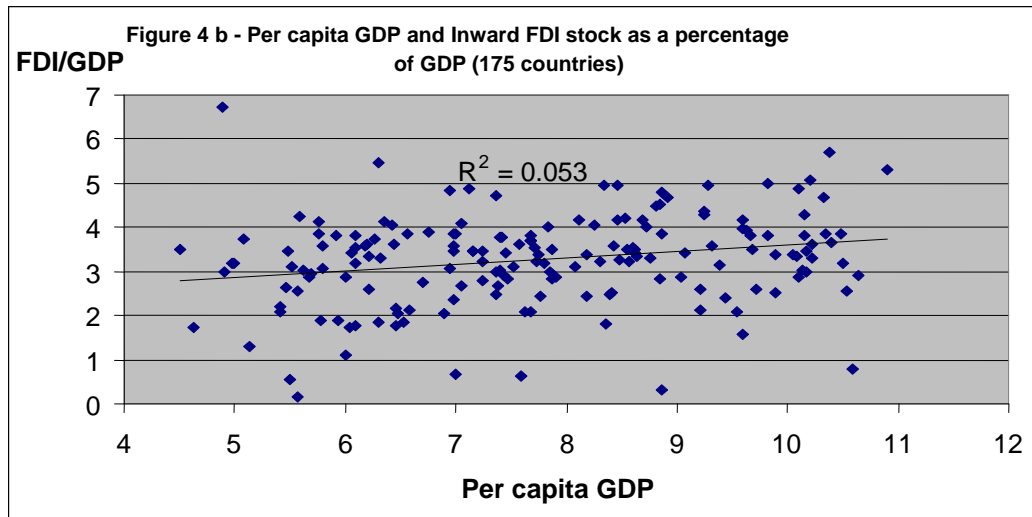


Figure 4b. Per capita GDP and Inward FDI stock as a percentage of GDP (175 countries)



Source: World Investment Report and World development Indicators.

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## ***CHAPTER 6. Corruption and Foreign Direct Investment in the Transition Economies***

### ***6.1 Introduction***

The previous chapter demonstrated the governance impact on inward foreign investments in a series of transition economies. One of the studied variables included in the analysis was corruption, which was found to be significantly correlated with inward FDI stock. The present chapter focuses further on this relation by expanding the research by including additional corruption variables and by carrying out a causality analysis between FDI and Corruption. Additionally it presents a series of real life case studies that further support the empirical results.

The chapter is structured as follows. Section 6.2 contains the literature review and Section 6.3 describes the gravity model applied, while Section 6.4 refers to the Panel Data and the causality analysis. Section 6.5 presents the results together with their interpretation. Sections 6.6 and 6.7 refer to corruption cases of FDIs and the OECD Convention for fighting corrupt practices. The chapter concludes in section 6.8



## ***6.2 Literature Review***

The literature on FDI determinants shows that multinational enterprises (MNEs) are significantly affected by corruption presence. In this context, there are two approaches, the “sand the wheels” and the “grease the wheels”. The first approach suggests that corruption deters FDI as it is an indication of a malfunctioning administration, whose “operation” usually results to increased costs for foreign firms. There are several ways by which corruption presence can deter FDI. Unofficial payments (bribes) increase the costs of several processes which involve the state, while at the same time are combined with the creation of artificial obstacles in order to cause delays to those that refuse to pay. This results in situations characterized by low transparency and property rights enforcement, while also to a permanent sense of risk of contract breaching (Teksoz, 2006). Corruption phenomena are particularly strong in transition countries and there are many authors that have argued that their presence is one of the most serious FDI deterrents (Resmini 2000, Hellman, Jones and Kaufmann 2002, Bevan and Estrin 2004, Caetano 2005).

Contrary to the “sand the wheels” approach, the “grease the wheels” approach refers to those aspects of corruption that can provide a kind of solutions in difficult situations. The basic idea behind this approach is that corruption can offset poor performing institutions. By doing so, corruption demonstrates, contrary to the previous approach, an FDI enhancing character (Shleifer and Vishny, 1993; Bardhan, 1999; Kaufmann and Wei, 2000; Aidt, 2003; Meon and Sekkat, 2005). This can be achieved through corrupt practices (usually bribes) that are able to accelerate administrative processes, while also to circumvent bureaucratic restrictions.

The corruption presence in the transition countries can be also seen in terms of interaction with inward foreign investments. This interaction can lead either to positive or negative impacts (Coupet, 2003; Sandholtz et al, 2003; Zhu, 2007). The positive impacts are related to situations in which foreign firms actually introduce in the host countries better

governance paradigms, which presupposes a particular MNE mode and character, while also enormous amounts of patience. Alternatively, foreign firms can just choose to exploit the prevailing situations as they are, by becoming strong and particularly active players in the corruption game, which usually ends in situations of higher corruption levels.

### **6.3 Panel Gravity Model**

The wide use of gravity models in studying FDIs has been discussed and presented in the previous chapter. Gravity model's main components are the remarket sizes of the two economies and the geographic distance between their main economic centers. The model is usually enriched with additional variables for which there are indications that they also affect FDIs. The advantages of using panel data are well known and have also been mentioned and discussed in the previous chapter. These are the increased precision due to larger sample size and the ability to face efficiently omitted variable bias and heterogeneity problems that often arise in cross-sectional investigations. The latter is of particular importance due to the existence of a large number of country-specific factors that cannot be directly embodied into the empirical model.

The empirical model which is developed for the scopes of the current analysis is the following:

$$FDI_{STt} = \beta_0 + \beta_1 GDP_{St} + \beta_2 GDP_{Tt} + \beta_3 DISTANCE_{ST} + \beta_4 COR_{Tt} + \beta_5 CONTROL_{Tt} + \varepsilon_{it}$$

Where

$FDI_{STt}$  is the bilateral FDI stock from the source to target country in current US Dollars. (Source: Vienna Institute for International Economic Studies Database 2006).

$GDP_{St}$  and  $GDP_{Tt}$  are the GDPs of the source and target countries in current US Dollars (Source: World Development Indicators Database 2007). These are expected to bear a positive sign

$DISTANCE_{ST}$  is the geographic distance between the source and target country which proxies transportation and information costs (Guerin 2006). (Source: Centre d' Etudes Prospectives et d' Informations Internationales (CEPII) database). It is expected to have a negative sign.

$COR_{Tt}$  is the corruption parameter for each target country. In this empirical model five alternative corruption measures are used, in order to expand the corruption phenomenon research with several measures of it. These are listed in the following table.

*Table 6.1 Corruption Variables, Data Sources and Scales*

Corruption Variable	Source	Scale
COR – 1	PRS Group (2004)	0 - 6
COR – 2	Annual Transparency International Databases	0 - 10
COR – 3	Kane, Holmes and O'Grady (2007)	0 - 100
COR – 4	Kaufmann, Kraay and Mastruzzi (2007)	-2.5 - 2.5
COR – 5	Average of the above corruption variables, calculated by using the Human Development Index method for variables with different scales	0 - 100

High values indicate low corruption level. Therefore, in case that high corruption has a deterring effect on FDI, a positive sign would be expected. It is important to bear in mind that all corruption variables are subjective, which is an important issue when dealing with corruption perception, especially among different countries<sup>18</sup>. Therefore, results should be interpreted with caution and always taking into consideration the subjectivity

<sup>18</sup> See Kaufmann, Kraay and Zoido-Lobaton (1999) for a discussion of the problems inherent in making cross-country comparisons.

parameter. However, corruption is by nature an issue inherent with subjectivity as it lies exclusively on human relations and interactions.

Another important issue related to the current database is the existence of missing values. The data is not available for the entire period under consideration for all the corruption variables. Therefore the results should be interpreted with caution. However, due to the fact that the corruption indices have different missing values, the risk of failing systematically to control for specific transition years is minimized.

CONTROL<sub>t</sub> are the additional variables used, in order to handle misspecification and omitted variables problems. Some of the variables were proven to be highly collinear with the corruption variables or they were statistically insignificant and as such they were excluded from the regressions.<sup>19</sup> Most of the control variables used are the same as in chapter 5 analysis and are described briefly below:

“TRADE” variable was taken from Kane, Holmes and O’Grady (2007) and is a composite measure of the absence of tariff and non-tariff barriers. The variable is scaled from 0 to 100. High values indicate more liberal trade regimes which are expected to be positively correlated to FDI.

“EU-LINKS” variable refers to the prospective membership to the EU. EU membership is considered to be a condition that reduces risk and transaction costs, while at the same time increases creditworthiness. Therefore, it is expected to be positively related to FDIs. It is a dummy variable

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<sup>19</sup> One of these variables was the natural resources which is an important FDI determinant. Two alternative measures of natural resources have been tried in the regressions but were left out as they were highly correlated with other variables (GDPT<sub>t</sub>). Firstly a resource dummy was used developed by De Mello et al (1997). The estimations with this dummy produced insignificant results, probably due to that according to the particular dummy, the only resource rich country in the sample was Russia. The actual oil and natural gas production data (taken from the IEA 2006) was also tried. This variable was proven to be highly correlated with the target country GDP. The coefficients for the corruption variables, however, remained always consistent and mostly significant. The particular variable will be used in the following chapter, in which the sample of the countries is larger.

“LAND LOCK” is used as a proxy for high transportation costs. It is expected to bear a negative sign. It is a dummy variable.

“COLONIAL LINK” variable is taken from the CEPII and aims to capture historical relations as potential FDI determinants (Frieden, 1989; Frieden, 1994; Abderrezak, 2008). There is no clear expectancy regarding the sign.

“GDP-growth (-1)” is target countries’ lagged growth of GDP, which captures the economic potential of the target countries, a widely used FDI determinant in the relevant literature. The lags are used in order to face potential endogeneity problems. It is taken from on line World Development Indicators

“FISCAL BURDEN” is taken from Kane, Holmes and O’Grady (2007) and consists of income and corporate taxation and change in government expenditure. It is expected to be negatively correlated with FDI.

“INFLATION” is a measure of macroeconomic instability which is assumed to discourage FDIs. It was taken by the online World Development Indicators database (provided by ESDS).

$\varepsilon_{it}$  is a white-noise error term,  $i$  is the country and  $t$  is the time period.

The correlation matrix (Appendix) showed that the “FISCAL BURDEN” variable was highly correlated with the “GDP growth”, “INFLATION” and two of the corruption variables (COR1 and COR3). For this reason, the particular variables were not used simultaneously in the regressions for multicollinearity avoidance reasons.

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#### ***6.4 Panel Data and Causality Analysis***

As in previous chapter's analysis, the data covers a period of 16 years (1990-2005) and the country sample contains 15 target (Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, FYROM, Poland, Romania, Russia, Slovakia, Slovenia and Ukraine.) and 24 source countries (Australia, Austria, Belgium, Canada, China, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States).

The empirical model was initially tested with its basic core, without the corruption variables for validation reasons. The results are given in Table 2(Appendix) and confirm the theory of gravity modelling. Additionally, the control variables were found to bear the expected significance.

The equation was estimated by using both the Pooled Least Squares method and Random Effects methods. The Fixed Effect method was not used as it eliminates the time invariant variables such as "distance", "colonial-link" and "landlockness". The elimination of the distance variable particularly would actually change the essence of the gravity model. Potential Heteroskedasticity problems were resolved by using the Newey-West Heteroskedasticity and Autocorrelation Consistent Standard Errors. The stationarity of the variables was tested by using the Levin, Lee and Chu and the Philips Perron methods with a Newey West bandwidth selection which confirm the stationarity of the studied variables. For the stationarity tests, the appropriate number of lags was calculated by using the Schwarz Information Criterion.

#### ***6.5 Results and Interpretation***

The results are given in tables 3 and 4 (Appendix of Chapter 6) and in general demonstrate that high corruption levels are related to increased FDIs. Despite the fact that

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the coefficients are not always statistically significant (for example COR2), they are consistent in terms of the direction of relationship.

The causality analysis in table 5 suggests that FDI Granger causes corruption, except with COR4, which supports the inverse direction of causality, that is, high level of corruption Granger causes high level of FDI. The particular variable though was somehow problematic. Despite the fact that it refers to 1996-2005, it is continuous only after 2002. This in combination with the Schwarz Information criterion requirement for 3 lags, the problem is further intensified. In order to face this problem and check the consistency of the results for COR4, another database was created by deleting the years without observations (1997, 1999 and 2001) from the original database and treated the database as continues which increased the degree of freedom. The results (COR\*) show that both causality directions are significant.

The findings, as with the results of previous chapter, are again surprising. Zhu (2007) suggests that particularly in relatively less democratic and less developed countries a rise in FDI inflows is associated with higher corruption levels. He argues that in those countries, foreign and domestic firms compete to pay bribes to get business contracts and foreign firms can therefore magnify corruption problems. Because foreign firms have the flexibility to adjust to the local investment environment and get business contracts, the host governments may have weak incentives to eradicate corruption. Therefore in these countries where transition problems persist, such results should be expected. The causality results go beyond the “grease the wheels” view and suggest that FDI may even contribute to higher corruption levels in the transition countries.

The FDI enhancing aspect of corruption, demonstrated by the empirical results, can be either related to a “necessary evil”/“grease the wheels” approach in which FDIs are forced by the prevailing conditions to adopt corrupt practices in order to get by, or to a “seeking to exploit” approach in which foreign firms are actually pursuing low

institutional quality situations in order to exploit them heavily by using their competitive financial strength, already demonstrated and described in chapter 4.

The “necessary evil” approach is supported in the literature by those who can see some beneficial corruption features for both firms and host countries. Nye (1967) has demonstrated such corruption features and benefits like capital formation enhancing in capital poor states, red-tape and discrimination avoidance, while also entrepreneurship promotion. Leff (1964) referred also to competition enforcement cases by means of bribery, while Acemoglu and Verdier (1998) spoke about an optimum corruption level. Khan (2004) finally described conditions under which corruption can bear a beneficial role.

On the other hand, the deliberate institutional weaknesses exploitation is certainly several steps beyond the “necessary evil” stages and displays an aggressive and unethical behavior. Support on this view is given by the empirical results so far and their combination. The significance and the sign of the corruption variables in the regressions do not provide an indication regarding FDI intentions. They just confirm the existence of a significant (positive or negative) relationship. However, the causality analysis results proceed a little more as they show that corruption, merely in terms of sequencing, comes after FDI, implying that a potential cause of corruption could be found in foreign firms’ presence. However, even this, is far from being a proof on its own of FDI’s greedy appetite for exploitation. It could be claimed that this appears in the context of the “necessary evil” approach. Foreign firms face and handle business environment’s difficulties by “producing” some corruption in order to circumvent obstacles. The latter interpretation matches both the regression and the causality analysis results. However, last chapter’s findings (chapter 5) contribute and advocate to the opposite alternative explanation. FDIs were found to be significantly correlated to the difference of corruption and governance level between source and target countries, implying that “clean” countries try to invest more to “dirty” countries. This is certainly something that can not fit well with the “necessary evil” approach, as the latter would suggest that there would



be no differences between foreign firms on this issue. Actually, someone would rather expect that firms already experienced in similar practices from their home countries would be more easily adjusted to such conditions. However, this is not confirmed by the overall empirical results so far. The view that is formed is that FDIs appear as entities that seek to exploit host countries institutional weaknesses and this exploitation in several cases further deteriorates them.

As these conclusions are merely empirical results driven, the need for real life verification is essential at this point, in order to formulate a more consistent view of FDI intentions. This takes place in the following section.

### ***6.6 MNEs Corruption Cases***

The empirical results demonstrated so far in the present and the previous chapters form a particular view of the relation of the Multinational Enterprises with the institutional context of the host countries in which they decide to invest. This view could be claimed that challenges the widespread view that Multinational Enterprises are in all cases deterred by the existence of institutional weaknesses or risks such as corruption and low bureaucratic quality.

The view that Multinational Enterprises are actively involved in cases of corruption is not actually a new one and has been stated by people that actually belong in the circle of International Investors like George Soros, who mentioned in Financial Times of 8 December 1998 in an article titled “Fund Manager Guru Reveals Doubts” that

*“There is always somebody who pays, and international business is generally the main source of corruption.”*

The MNEs involved in corrupt practices appear in both the developed and the developing countries.

It is important to state that the cases described below do not form an exhaustive list of MNEs involved actively in corruption cases, but they are just a selection of them. At the same time the conclusions that can be reached cannot be generalized, but are only indications of certain tendencies appearing among the MNEs community, which support further the empirical results described and discussed previously.

### **6.6.1 Siemens**

One of the most known cases that appeared recently regarding a large European MNE was the bribing activity of SIEMENS. Siemens paid kickbacks to win contracts for transportation in Venezuela, mobile-telephone networks in Bangladesh, power plants in Israel and traffic-control systems in Russia, according to prosecutors. The company allegedly paid \$1.36 billion in bribes to government officials worldwide and concealed them using off-book accounts (Sheenagh, 2008). Similar Siemens corruption cases are investigated also in China, Indonesia, Nigeria and Norway (Associated Free Press, 2007).

In Greek market, Siemens had a long presence with two manufacturing plants. The corruption allegations started mainly after the 2004 Olympic Games and after information referring to several contracts given to the company regarding telecommunication systems due to the fact that the company was having close ties with both major leading political parties.

Despite the existing rumors regarding illegal payments on behalf of the company, it was the formal and public admission of former secretary of the Socialist Party that had accepted an unofficial payment of € 1 million from Siemens that actually confirmed the rumors and triggered political and judicial developments, which in turn proved that both major political parties were involved in such practices during the last two decades.

The contacts of Siemens with public officials took place at the highest possible political level. In Greece recently a series of letters have been revealed (Kanellis, 2010) that have been sent by the heads of the Siemens Hellas Telebiomichaniki (the Greek subsidiary of Siemens) to the Prime Minister of Greece in 1993, Mr. Mitsotakis calling him to “put in order” some of his ministers which were not co-operating with the company in a “satisfactory” way. In 1993 Siemens was granted a contract in Greece for which an international tender was put in place and in which Siemens had participated having the most expensive proposal. This caused many questions regarding the Company’s employed methods. Due to the increased amount of complaints European Commission finally intervened and halted the particular project.

After the revealing of the corrupt methods of Siemens in global level, the company shut one of its manufacturing plants in Greece and its leads left the country. The former CEO, which had several political links, escaped in Germany and when the judicial process was initiated, Germany’s Federal Constitutional Court refused to hand him over to Greece, in order to be taken to court, but released him after paying to a fine to the parent company, Siemens (TA NEA Newspaper, 2010) .

The case of Siemens corrupt practices does not end in Greece but has spread globally. However, what is of particular interest in the Greek case is the degree of intervention ability that the company had in the highest possible political level. The fact that the particular MNE through its subsidiary had the ability to require from the prime minister of a country to persuade its ministers to behave “properly” goes far beyond any approach that claims that this was in the context of a “necessary evil” or an action to “grease the wheels”. This is actually one of the most representative examples of the maximum possible level of State Capture.

From the particular case, someone could reach some conclusions regarding the institutional weaknesses of certain countries. However, the particular case sheds lights on the practices of countries which are considered to have strong institutions, like Germany.

Its refusal, based on legal details, to hand over the person that was involved in corrupt methods to another country, which also belongs to EU, creates several questions. These questions in turn, could be possibly linked with the findings of chapter 5 regarding the preference of countries with good governance to invest in countries with poor governance.

### ***6.6.2 Hellenic Telecommunications Organisation SA(OTE)***

OTE was established in Greece in 1949 as a state - run monopoly. The Company is a full services communications group providing local, long distance, and international communication services to Greek and foreign businesses, customers and government agencies.

Internationally, OTE has presence through its foreign investments and subsidiaries in Serbia, Armenia, Romania, Ukraine, Albania, FYROM and Bulgaria. Most of them were realized during these countries' transition period.

In November 1998, OTEROM subsidiary of OTE in Romania, acquired a 35 percent share in ROMTelecom S.A. at the price of 675 million USD, the Romanian public telecommunication organization. This acquisition however was accused of involving high level corruption activities. According to Open Society Institute (2002), the Chief of a Parliamentary Commission of Inquiry accused four ministers from the ROMTelecom Privatization Committee of having received several million dollars as a "commission" to favour the winner of the contract, which was OTE. The report of the Parliamentary Commission of Inquiry also stated that the State lost more than €867m because of the manner in which the privatization contract was drafted.

Similar accusations for bribing took also place during the combined attempt of OTE with Dutch KPN to win the contract for the privatization of Bulgarian Telecommunications Company (BTC), a contract which was finally called off.

### **6.6.3 Aon Limited**

AON is a global provider of risk management services, insurance, reinsurance brokerage and human capital consulting. According to the official web site of the Company ([www.aon.com](http://www.aon.com)), the company maintains offices and representatives in 120 countries.

On 23 December of 2008, FSA posed a financial penalty to Aon Ltd of £5.25 million for making suspicious payments to a number of Overseas Third Parties amounting to \$ 2.5 million and € 3.4 million during the period between 14 January 2005 and 30 September 2007.

According to FSA's final notice to the company (2009), Aon Limited among others had been involved in paying in advance large sums to an Overseas Third Party in order to undertake the reinsurance of a state owned insurance company in Burma. The FSA's report states that *"...There were a number of indications that the Overseas Third Party might have been connected to an individual in the insurance company"*. The final notice of FSA refers also to similar payments were also directed to Third Parties in the case of a reinsurance of a Bulgarian insurance company undertaken by Aon Ltd.

### **6.6.4 Johnson & Johnson**

The drug and consumer products company Johnson & Johnson has established subsidiaries in several countries, including Poland.

According to International Herald Tribune publication (Seelye, 2007) "Johnson & Johnson says improper payments were made", in 2003, the Security and Exchange Commission (SEC) warned the company about informal investigations regarding

accusations for payments to Polish government officials for signing contracts related to the procurement of medical devices.

The investigations entered a new and formal investigation in November 2003 by SEC. Four years later in 2007, the company admitted that some of its foreign units might have made improper payments related to the sale of medical devices in two "small-market countries." The Company did not name the countries, its subsidies and the related payments. The company was also involved in a series of other corruption cases. In early 2006, the company received a subpoena from the SEC requesting documents relating to the participation by several of its subsidiaries in the United Nations Iraq Oil-For-Food Program. In 2005, Portugal's regulators fined J & J for participating in an illegal cartel in supply bids to 22 different hospitals on 36 occasions, which also involved four other large pharmaceutical MNEs, Abbott Laboratories of the United States, Germany's Bayer AG, Italy's Menarini Diagnosticos and Switzerland's Pharmaceutica Quimica (Associated Free Press, 14/10/2005).

### ***6.6.5 Halliburton***

Halliburton is an American MNE specializing in energy projects around the globe. The particular company had concentrated in the past a lot of criticism due to the fact that the former US vice president was Halliburton's head.

The company was involved in corruption cases related to the implementation of large energy projects. One of these cases was the construction of a giant liquefied natural gas plant on the Nigerian coast near Port Harcourt from 1996 through the mid-2000s. The project was undertaken jointly by France's Technip SA, Italy's Snamprogetti and Japan's JGC Corp.

Halliburton's former chief executive officer pleaded guilty to charges for bribing Nigerian Government officials for the natural gas project. The total amount of bribes

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given to the officials reached USD 180 million. The particular officer agreed to co-operate with US authorities regarding Halliburton's violations of the Foreign Corrupt Practice Act resulting in 2009 to a fine of \$559 million. Under the settlement with the company, Halliburton would pay \$382 million to the Department of Justice and \$177 million to the Securities and Exchange Commission in "disgorgement". (Driver, 2009).

Despite the fact that Halliburton was in a state of being accused for bribery cases, it was still receiving government backing. Halliburton's British subsidiary, Kellogg, Brown & Root (KBR), was supported in an oilfield deal in Kazakhstan with a \$10m (£5.5m) loan guarantee from the British Department of Trade and Industry (Leigh, 2005). According to the same article, no firm was prosecuted in the UK for bribery, and ministers had rejected demands that companies suspected of overseas corruption should be suspended from future assistance. At the same time large companies had also managed to water down detailed anti-bribery regulations.

Halliburton's case certainly adds up to not only to the confirmation of this chapter's finding regarding the positive links between FDI and Corruption, but also to the previous chapter's finding that corruption presence actually attracts foreign investments from countries with lower corruption levels and better governance.

#### **6.6.6 ABB**

ABB is a multinational specialized in the sector of power systems. Its history dates back to the late 19<sup>th</sup> century and it is actually a case of two different companies (ASEA and BBC) which were established in 1890's and merged in 1989. It owns more than 40 different firms and employs more than 80,000 people globally.

Its specialization in power systems has enabled ABB's involvement in all kinds of large energy projects and in all parts of the world.

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ABB Vetco Gray is a U.S. company based in Houston, Texas and is the headquarters for Vetco Gray's Western Hemisphere operations. ABB Vetco Gray UK Ltd. is based in Aberdeen, Scotland and is headquarters for Vetco Gray's Eastern Hemisphere operations.

These two companies were involved in large oil exploration projects in Nigeria. However their involvement seems that had been supported by the employment of corrupt methods. More specifically, the two companies were accused of paying bribes to officials of NAPIMS, a Nigerian government agency that evaluated and approved bidders for contract work on oil exploration projects in Nigeria. According to the accusations, the companies paid more than \$1 million for obtaining confidential bid information and favorable recommendations from Nigerian government agencies in connection with seven oil and gas construction contracts in Nigeria from which the companies expected expected profits of \$12 million (Department of Justice, 2004).

The accusations led to the prosecution of the two subsidiaries. More specifically, according to the relevant announcement of the Department of Justice (2004)

*“ABB Vetco Gray Inc., the U.S. subsidiary, is charged under 15 USC Section 78dd-2, the FCPA section applying to “domestic concerns.” ABB Vetco Gray UK Ltd. is charged under 15 USC Section 78dd-3, the FCPA section that was added in 1998 to implement the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Technology by expanding FCPA's coverage to foreign companies that take an act in furtherance of the bribe of a foreign official while in the United States”*

In July 6<sup>th</sup> of 2004, the Assistant Attorney General Christopher Gray of the Criminal Division announced that the two subsidiaries of ABB had pleaded guilty to criminal information charging each of them with bribery in violation of the Foreign Corrupt Practices Act. Both companies agreed to pay a fine of \$ 5.25 million.



However, the whole investigation did not end at that point. In a separate action, SEC (Securities and Exchange Commission) filed a complaint against the parent company, ABB Ltd alleging violations of anti-bribery, books and records, and internal control provisions of the FCPA, arising from suspected payments in Nigeria, Kazakhstan and Angola. The parent company ABB Ltd under the threat of new accusations agreed to a civil settlement that included the hiring of an outside consultant to review its system of internal controls and a civil penalty payment of \$10.5 million, which was to be deemed satisfied by payment of the criminal fine. ABB Ltd. voluntarily disclosed the suspicious payments to the Department of Justice and the SEC in late 2003. Subsequently, the company agreed to provide “real-time” disclosure of the results of a joint investigation conducted by lawyers for ABB Ltd. and lawyers representing the purchasers of ABB’s Vetco Gray group of companies.

In a similar internal investigation carried out in 2007, the parent company admitted that it may have violated the US FCPA after finding out a series of suspect payments that were made by some employees abroad (Economic Times, 2007)

The case of ABB’s corrupt practices referred previously is a characteristic case of “MNE-sourced” corruption. The fact that the corruption allegations referred to the bribing for obtaining “confidential bid information” leaves no room at all for any “necessary evil” or “grease the wheels” type of justifications/explanations. It is merely a display of an active and deliberate will for institutional weaknesses’ exploitation on behalf of large and powerful MNEs.

However, the particular case together with some others that were previously mentioned, show the power that some legislations and international agreements have for fighting corruption. Such agreements are the Foreign Corrupt Practice Act and the OECD Convention on Combating the bribery of Foreign Public Officials in International Business Transactions, which are analyzed and discussed in the next section.

### ***6.7 Legislation and Conventions against Corrupt Practices***

The previous section described some cases of MNEs which were involved in corrupt practices. Due to the fact that such cases are increasing together with MNEs presence globally, countries like US proceeded to the adoption of specialized legislation trying to limit similar practices. This was followed then by international agreements within large country groupings like OECD. The fact that these initiatives were taken by strong countries and large organizations is undoubtedly an indication of a will in global governance level to keep international trade and investments within certain limits of deontology and behavior. At the same time, however, these legislations and international conventions can be also seen as a verification of the seriousness of the MNEs corruption involvement.

#### ***Foreign Corrupt Practice Act***

The US Foreign Corrupt Practice Act originally passed in 1977 and tried to prevent the direct or indirect paying of bribes abroad by US firms. Although bribery of US official was illegal, bribery of foreign firms was not violating any US law. Therefore, the introduction of FCPA was indeed something pioneering at that time and the decision for the particular legislation met severe confrontation from commentators that attacked its provisions claiming that it is an export of morality and an attempt to reduce American competitiveness abroad (Smallwood, 1979; Sheffett, 1995).

The enforcement of FCPA is divided between the Securities and the Exchange Commission (SEC) and the Justice Department. SEC is responsible for the policing and civil prosecutions of the provisions related to accounting and refers cases requiring criminal prosecution to the Justice Department. The FCPA provisioned severe penalties for those entities that would violate it, ranging from \$ 10,000 for individuals to \$ 2 - 25 millions for deliberate practices of corporate entities.

Until the 1990s the United States remained the only country in the world which had enforced similar legislation and that was very important as USA was one of the main source of international investors. However, until 1981 there was only one successful criminal prosecution for bribery under the Act (Shefet, 1995)

In 1998 the Congress passed the Omnibus Trade and Competitiveness Act- Title V, which contained amendments to FCPA, addressing two major criticisms to FCPA. The first one was that the Act was reducing US firms competitiveness and the second one was related to the difficult and expensive compliance to the accounting provisions. The amendments satisfied somehow the particular criticism by introducing extended exceptions of certain types of payment and a reduction of the required accounting detail and assurance (Shefet, 1995).

However, these amendments were considered by many as a retreat for the initial stringency of the Act and as repetition of the mistakes of the past (Porrata-Doria, 1985). Puckett (2008) indicated the cases called also as “loopholes”, which stayed out of reach for the FCPA. The FCPA does not consider as corrupt acts, the facilitation payments and not all gifts to officials are categorized as bribes. Surprisingly, payments in the context of lobbying activities are considered as absolutely legal. In addition, the FCPA provides ways for escape even for those individuals or legal entities that are being prosecuted for corrupt practices, by claiming the lawfulness of their acts according to payee’s country legislation, or by stating that the payments were a “*reasonable and bona fide*” expenditure. The Economist magazine (1999) referring on the US anti-corruption legislation and the FCPA stated that “...the law merely encourages American firms to bribe more cleverly”.

Shefet (1995) carried out an empirical analysis based on firm level evidence (questionnaire based) regarding the impact of FCPA on firms having business abroad. The empirical results showed that several of the surveyed firms changed their attitude and

code of ethics. However, the majority of the firms did not change their code of ethics subsequently, their attitude towards corrupt practices.

Despite the Act's inefficiencies or possibly drawbacks, it is difficult to claim that FCPA does not accomplish its mission. First of all, it was certainly the first legislation of its kind and certainly showed the way for similar movements. Apart from that and as the majority of the cases presented in the previous section showed, it was the institutional measure that led so far to the conviction of several large MNEs for their corrupt practices.

#### *OECD Convention on Combating Bribery*

According to Moran (2002), the increased stress on governance issues in the 1990s made the US to start lobbying the rest of the OECD members to adopt legal frameworks similar to the FCPA, which stresses FCPA's importance further. The international Convention on Combating Bribery of Foreign Public Officials in International Business Transactions was signed in December 1997 by 29 OECD members plus Argentina, Brazil, Bulgaria, Chile and Slovakia and was finally ratified in February 1999. The Convention required that each of the participating members would adjust their national legislation so that bribing foreign public officials would be a criminal offence. The term "foreign official" refers to anyone holding a "legislative, administrative or judicial post in a foreign country", while also anyone in public sector companies and international organizations. The Convention also required governments to ensure proper punishment for bribery of a foreign official (including prison sentences and fines), to tighten accounting and auditing requirements by prohibiting "the establishment of off-the-books accounts, to ease international legal cooperation, including extradition of guilty parties and to proceed to the end of tax deductibility for illicit payments. In 2009 the OECD Anti – Bribery Convention was enriched with the recommendations of the Council for further combating bribery.

However, the undoubtedly good intentions of the OECD Convention, as in the case of FCPA received severe criticism regarding its overall efficiency. In this context the Corner

House report (2000) states that the Convention does not prohibit the funding of foreign political parties, it does not make parent companies responsible for the corrupt practices of their subsidiaries, it does not take into account other bribing means e.g. shares, trips and finally it does not specify sanctions or means of enforcing its provisions. Moran (2002) refers particularly to ambiguity issues which are inherent in the Convention. More specifically, he refers to the fact that despite Convention's provision for the illegality of bribing foreign public officials, there is no provision for members of political parties or candidates, which very often act as go-betweens or beneficiaries of bribery transactions.

The OECD convention impact was tested, as FCPA, empirically. Hellman et al (2002), which were the generators of the BEEPS surveys used in Chapter 4, studied the impact of FCPA and OECD Convention against bribery on FDI in transition countries. By using the BEEPS 1999 database the authors showed that the existence of these agreements / legislations (OECD/FCPA) did not have any significant impact on foreign investors attitude, that is, they did not prevent them from corruption activities. The reason for this inefficiency can be traced in the attitude of some countries towards the Convention. Britain for example, despite the fact that was among the countries that have signed the OECD convention against bribery, demonstrated a particular delay in embodying the convention provisions in its legislation (Guardian, 2000). Britain maintained until recently an antiquated legislation which dates back to 19<sup>th</sup> century (The 1889 Public Bodies Corrupt Practices Act, 1906 Prevention of Corruption Act, 1916 Prevention of Corruption Act), which according to Corner House (2000) had never prosecuted up to that time anyone in the UK for bribery of a foreign public official and was applied only in cases in which the corrupt act or its preparation took place in the UK. Moran (2002) indicates that behind the hesitations of applying the Convention's provisions are certain industries, while also government pressures that try by all means to encourage the competitiveness of their national economies' structures. Additionally, the MNEs' strength and their special relations with nation states, which were discussed in section 2.9 intensify the problem further.

Despite the criticism, the existence of the OECD Convention is certainly a step forward in the fight against corruption in global level. Inefficiencies, at least in the primary stages of implementation, are justified and are subject to future improvements. However, as Shefet (1995) stated, there is a long way ahead, because so far the results are rather poor.

### ***6.8 Conclusions***

The chapter was focused on the relation between FDI and corruption following the corresponding analysis for FDI and Governance presented in chapter 5. By using gravity model, the analysis was expanded in order to include a series of five different corruption indices.

The empirical results verified the positive link between foreign investments and corruption levels in the transition countries of study, challenging the widespread view that corruption is among the primary FDI deterrents. Proceeding more into the research of the issue and by means of causality analysis, it was also shown that corruption was actually following foreign investments providing indications that it may be foreign investments that actually cause a significant proportion of corruption.

The positive link between foreign investments and corruption levels and even the causality results could justify a view of FDI that adopt corrupt practices in order to bypass or handle business environment obstacles. However, this view can hardly explain the results of chapter 5 regarding the significant relationship between host countries with high corruption levels and foreign firms originating from countries with low corruption levels. Additionally to that, a sample of real life MNEs examples involved in corruption cases all around the world further advocates a view of FDI that are actually pursuing situations of weak institutional quality that offer unique exploitation opportunities by international business entities with remarkable financial strength.

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The chapter contained also a description of international conventions against corruption and bribery (FCPA, OECD convention on fighting bribery) and their results. Despite the fact that such conventions and legislative measures certainly set the basis for further future enforcement of the fight against corruption, their performance so far has received criticism for inefficiency and their results so far are rather minimal. The reason for this can be traced both to the unwillingness of certain states to actively promote such measures or the MNEs influential power and flexibility to circumvent them.

***APPENDIX OF CHAPTER 6: Tables of Results***



*Table 1: Descriptive Statistics for Variables*

	<b>Mean</b>	<b>Median</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Obs.</b>
FDISTOCK	440,767	55,8	14787,6	0	2339
GDP (S)	1,07E+12	2,59E+11	1,11E+13	6,10E+09	4625
GDP (T)	4,08E+10	1,69E+10	3,86E+11	1,12E+09	4580
DISTANCE	2497,50	1580,92	16152,80	59,62	4640
TRADE POLICY	72,03	69,60	100,00	0,00	2861
EULINKS	0,38	0,00	1,00	0,00	4640
LANDLOCK	0,32	0,00	1,00	0,00	4640
COLONIAL LINKS	0,05	0,00	1,00	0,00	4640
GDP GROWTH (%)	1,37	3,82	85,90	-32,12	4437
FISCAL BURDEN	77,03	78,33	94,41	41,00	2861
INFLATION	69,17	8,88	4734,92	-1,18	3742
COR 1	3,49	3,25	5,00	1,00	2538
COR 2	4,10	4,00	6,40	1,50	2295
COR 3	41,27	41,00	70,00	0,00	2861
COR 4	0,09	0,19	1,05	-1,16	2031

Table 2: Baseline Panel Data Gravity Model Estimates

	OLS		GLS	
<b>Constant</b>	-31.10 [-7.83]***	-44.56 [-10.1]***	-43.02 [-15.6]***	-52.66 [-19.4]***
<b>GDP (S)</b>	0.66 [6.6]***	0.66 [6.54]***	0.73 [9.8]***	0.68 [9.37]***
<b>GDP (T)</b>	1.16 [11.8]***	1.24 [13.6]***	1.49 [17.1]***	1.44 [17]***
<b>DISTANCE</b>	-1.46 [-11.5]***	-1.47 [-11.6]***	-1.48 [-10.6]***	-1.48 [-10.8]***
<b>TRADE</b>	0.18 [0.43]	0.17 [1.2]	0.11 [0.65]	0.28 [3.8]***
<b>EU-LINKS</b>	0.30 [1.79]*	0.26 [1.64]	0.57 [8.12]***	0.67 [10.6]***
<b>LAND-LOCK</b>	-0.21 [-0.85]	-0.12 [-0.49]	-0.14 [-0.60]	0.02 [0.07]
<b>COLONIAL-LINK</b>	0.66 [2.08]**	0.68 [2.24]**	0.66 [1.35]	0.76 [1.59]
<b>GDP GROWTH (-1)</b>	-0.13 [-0.41]		0.59 [3.34]***	
<b>FISCAL BURDEN</b>		2.61 [4.07]***		3.08 [11.7]***
<b>INFLATION</b>	-0.08 [-1.26]		-0.16 [-5.82]***	
<b>N</b>	1983	2042	1983	2042
<b>R<sup>2</sup></b>	0.453	0.458	0.335	0.354
<b>Wald-Joint</b>	322.4 [0.00]***	344.5 [0.00]***	954.6 [0.00]***	1061 [0.00]***
<b>Wald-dummy</b>	61.34 [0.00]***	102.5 [0.00]***	244.7 [0.00]***	378 [0.00]***
<b>AR (1)</b>	10.12 [0.00]***	9.93 [0.00]***	31.18 [0.00]***	30.59 [0.00]***
<b>AR (2)</b>	9.64 [0.00]***	9.47 [0.00]***	9.28 [0.00]***	9.43 [0.00]***

Notes: “\*\*\*” is significant at 1 % level, “\*\*” is significant at 5% level and “\*” is significant at 10 % level. All variables are in logarithmic form.

Table 3: Panel Data Gravity Model Estimates OLS

## Pooled (OLS)

	1	2	3	4	5	6	7
<b>Constant</b>	-22.0 [-3.91]***	-29.8 [-6.25]***	-33.4 [-8.46]***	-35.3 [-8.63]***	-23.6 [-4.18]***	-49.3 [-7.97]***	-43.0 [-10.2]***
<b>GDP (S)</b>	0.66 [6.07]***	0.67 [6.48]***	0.67 [6.58]***	0.66 [6.76]***	0.63 [5.83]***	0.66 [6.44]***	0.65 [6.71]***
<b>GDP (T)</b>	1.07 [9.59]***	1.07 [10.7]***	1.20 [12.2]***	1.15 [12.1]***	1.08 [9.53]***	1.21 [12.7]***	1.20 [13.4]***
<b>DISTANCE</b>	-1.44 [-10.4]***	-1.48 [-11.3]***	-1.47 [-11.5]***	-1.50 [-11.4]***	-1.46 [-10.3]***	-1.50 [-11.6]***	-1.51 [-11.4]***
<b>TRADE</b>	0.15 [0.35]	0.37 [0.85]	0.44 [1.02]	0.61 [1.38]	0.45 [0.91]	-0.04 [-0.09]	0.37 [2.82]***
<b>EU-LINKS</b>	0.37 [1.84]*	0.14 [0.66]	0.50 [3.11]***	0.77 [3.97]***	0.34 [1.13]	0.09 [0.45]	0.75 [4.22]***
<b>LAND-LOCK</b>	-0.14 [-0.53]	-0.16 [-0.62]	-0.27 [-1.08]	-0.05 [-0.21]	-0.07 [-0.24]	-0.07 [-0.26]	-0.01 [-0.04]
<b>COLONIAL-LINK</b>	0.61 [1.69]*	0.59 [1.77]*	0.63 [1.92]**	0.66 [2.08]**	0.61 [1.79]**	0.63 [1.98]**	0.71 [2.30]**
<b>GDP GROWTH (-1)</b>	-1.36 [-1.69]*	0.40 [0.60]	0.27 [0.76]	0.69 [1.47]	-0.91 [-1.11]		
<b>FISCAL BURDEN</b>						4.22 [4.48]***	2.32 [3.76]***
<b>INFLATION</b>	0.069 [0.86]	0.00 [-0.01]	-0.01 [-0.13]	-0.09 [-1.43]	-0.01 [-0.20]		
<b>COR-1</b>	-1.665 [-3.88]***						
<b>COR-2</b>		-0.91 [-1.57]				-0.15 [-0.26]	
<b>COR-3</b>			-0.39 [-2.52]**				
<b>COR-4</b>				-0.81 [-4.35]***			-0.70 [-3.73]***
<b>COR-5</b>					-0.79 [-2.98]***		
<b>N</b>	1306	1713	1983	1372	799	1760	1431
<b>R<sup>2</sup></b>	0.455	0.439	0.458	0.458	0.442	0.449	0.457
<b>Wald-Joint</b>	323.7 [0.00]***	298.6 [0.00]***	325.6 [0.00]***	421.5 [0.00]***	298.0 [0.00]***	332.7 [0.00]***	386.4 [0.00]***
<b>Wald-dummy</b>	15.19 [0.00]***	39.03 [0.00]***	71.54 [0.00]***	74.49 [0.00]***	17.50 [0.00]***	63.59 [0.00]***	104.3 [0.00]***
<b>AR (1)</b>	9.02 [0.00]***	9.65 [0.00]***	10.1 [0.00]***	9.77 [0.00]***	8.33 [0.00]***	9.47 [0.00]***	9.61 [0.00]***
<b>AR (2)</b>	8.36 [0.00]***	9.22 [0.00]***	9.63 [0.00]***	8.93 [0.00]***	7.00 [0.00]***	9.06 [0.00]***	8.80 [0.00]***

Notes: “\*\*\*” is significant at 1 % level, “\*\*” is significant at 5% level and “\*” is significant at 10 % level. All variables are in logarithmic form.

Table 4: Panel Data Gravity Model Estimates GLS

## Random Effect (GLS)

	1	2	3	4	5	6	7
<b>Constant</b>	-33.2 [-8.69]***	-48.7 [-15.3]***	-43.9 [-15.9]***	-42.2 [-13.6]***	-32.1 [-7.54]***	-59.2 [-18.4]***	-51.3 [-17.5]***
<b>GDP(S)</b>	0.69 [8.47]***	0.73 [9.56]***	0.72 [9.66]***	0.70 [9.11]***	0.65 [7.69]***	0.68 [8.75]***	0.65 [8.78]***
<b>GDP(T)</b>	1.32 [11.6]***	1.72 [17.6]***	1.56 [17.5]***	1.47 [15.8]***	1.29 [10.6]***	1.55 [16]***	1.42 [15.7]***
<b>DISTANCE</b>	-1.50 [-9.99]***	-1.55 [-10.8]***	-1.50 [-10.7]***	-1.49 [-10.4]***	-1.51 [-9.73]***	-1.55 [-10.7]***	-1.48 [-10.6]***
<b>TRADE</b>	-0.21 [-1.07]	0.37 [1.95]**	0.21 [1.22]	0.35 [1.58]	0.93 [2.83]***	0.25 [1.35]	0.33 [4.15]***
<b>EU-LINKS</b>	0.75 [7.78]***	0.68 [6.32]***	0.61 [8.56]***	0.57 [5.33]***	0.02 [0.11]	0.60 [5.87]***	0.73 [7.56]***
<b>LAND-LOCK</b>	-0.29 [-1.07]	-0.63 [-2.42]**	-0.32 [-1.32]	-0.12 [-0.50]	-0.10 [-0.33]	-0.41 [-1.55]	0.04 [0.17]
<b>COLONIAL-LINK</b>	0.78 [1.41]	0.58 [1.14]	0.59 [1.21]	0.63 [1.27]	0.68 [1.20]	0.72 [1.45]	0.75 [1.55]
<b>GDP GROWTH (-1)</b>	0.12 [0.33]	0.63 [1.80]*	0.76 [4.15]***	0.54 [1.73]*	-0.50 [-1.12]		
<b>FISCAL BURDEN</b>						4.31 [9.88]***	3.03 [9.39]***
<b>INFLATION</b>	-0.05 [-1.26]	-0.15 [-4.71]***	-0.13 [-4.55]***	-0.16 [-5.17]***	-0.15 [-3.70]***		
<b>COR-1</b>	-1.04 [-5.21]***						
<b>COR-2</b>		-0.29 [-0.83]				-0.33 [-1.01]	
<b>COR-3</b>			-0.34 [-3.66]***				
<b>COR-4</b>				-0.27 [-2.00]**			-0.19 [-1.47]
<b>COR-5</b>					-0.72 [-3.38]***		
<b>N</b>	1290	1697	1983	1371	778	1733	1430
<b>R<sup>2</sup></b>	0.299	0.286	0.339	0.334	0.315	0.312	0.354
<b>Wald-Joint</b>	595.4 [0.00]***	665.7 [0.00]***	973.2 [0.00]***	655.9 [0.00]***	391.3 [0.00]***	767.2 [0.00]***	740.4 [0.00]***
<b>Wald-dummy</b>	75.58 [0.00]***	235.0 [0.00]***	253.8 [0.00]***	183.9 [0.00]***	56.80 [0.00]***	339.3 [0.00]***	306.4 [0.00]***
<b>AR (1)</b>	13.7 [0.00]***	24.1 [0.00]***	30.8 [0.00]***	16.1 [0.00]***	4.97 [0.00]***	23.7 [0.00]***	15.8 [0.00]***
<b>AR (2)</b>	1.27 [0.21]	3.99 [0.00]***	9.04 [0.00]***	-1.24 [0.22]	-2.36 [0.02]**	3.78 [0.00]***	-0.70 [0.49]

Notes: “\*\*\*” is significant at 1 % level, “\*\*” is significant at 5% level and “\*” is significant at 10 % level. All variables are in logarithmic form.

Table 5: Causality Analysis

Null Hypothesis:	Obs	F-Statistic	Probability	Lags
COR1 does not Granger Cause FDI FDI does not Granger Cause COR1	976	2.57 10.5	0.05 0.00	3
COR2 does not Granger Cause FDI FDI does not Granger Cause COR2	615	1.43 3.50	0.23 0.01	3
COR3 does not Granger Cause FDI FDI does not Granger Cause COR3	1457	1.13 4.15	0.32 0.01	2
COR4 does not Granger Cause FDI FDI does not Granger Cause COR4	152	2.64 0.42	0.05 0.74	3
COR4* does not Granger Cause FDI FDI does not Granger Cause COR4*	391	3.33 2.07	0.01 0.08	4
COR5 does not Granger Cause FDI FDI does not Granger Cause COR5	231	1.21 7.32	0.27 0.01	1

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## ***CHAPTER 7. FDI Determinants in Transition Countries. The Role and Impact of Transition Speed.***

### ***7.1 Introduction***

The previous empirical chapters have focused mainly on the institutional determinants of FDI in the transition economies under study. As FDIs are not solely determined by FDI incentives of an institutional nature, the present chapter will expand the analysis, in order to include additional determinants, which according to the most prominent FDI theories and the existing literature have a significant role. The inclusion of these variables in the study will contribute further to the formulation of a more comprehensive view of the FDIs in the transition countries, which is attempted in the context of the current research.

The chapter is structured as follows. Section 7.2 contains literature review, which will guide the selection of the main FDI determinants for the empirical analysis. Section 7.3 describes the theoretical basis of the selected variables, whilst 7.4 describes the empirical model in detail together with its variables. The database is described in Section 7.5. Section 7.6 analyzes technical issues, regarding the variables and the

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econometric methods applied. The results of the empirical analysis are discussed in Section 7.7. The chapter concludes with Section 7.8.

## ***7.2 Literature Review and Variable selection***

The research on FDI determinants largely initiates from the fact that many of the parameters that shape firms' competitiveness are location-related and as such the decision for host country selection is a strategic one (Krugman, 1991a,b; Porter, 1994). The related literature contains several studies containing various FDI determinants. Their common theoretical basis lies on the fact that they can be contextualized in one of the prevailing theoretical frameworks for FDI (see Chapter 2).

Market-seeking FDI are certainly focused on countries with market potential, the latter displayed in most of the cases in GDP's growth. The relation between FDI and growth has a double direction character, that is, FDI may cause growth, which in turns attracts FDI. Of course the relation's sequence may be the other way round, that is, growth may actually attract FDI primarily, which in turn may cause growth and so on (De Mello, 1999; Hansen and Rand, 2004). Lipsey (2000) and Dunning (1970) confirmed the positive relationship between FDI flows from developed countries and host country's economic growth. Ram and Zhang (2002) also found a positive relation between FDI and economic growth in their large sample of low-income and middle-income countries in the 1990s. Seyf (2001) focusing on Japanese FDI in Europe found that market potential in terms of growth played a positive and significant role in location decisions. Erdal and Tatoglu (2002) focusing on Turkey's manufacturing sector demonstrated economic growth's significant role as an FDI determinant. Borezstein et al (1995) argued that a prerequisite for the existence of a strong and positive relationship, between FDI and economic growth, is a minimum threshold stock of human capital in the host economy, which would allow the exploitation of benefits that a multinational can bring. However, the relationship between FDI and economic growth has been challenged and has received criticism (Carkovic and Levine, 2002; Aitken and Harrison, 1999; Blomstrom et al, 1992; Lensink and Morissey, 2006).

Closely linked to and similar to economic growth as an FDI determinant is trade potential which has been extensively studied in the related literature. Although there are studies showing a negative correlation between FDI and trade (Wheeler and Mody, 1992) displaying import and export substitution phenomena in cases of market seeking FDI, other studies (Sin and Leung, 2001; Sun et al, 2002; Asiedu, 2002; Morrisset, 2000; Noorbakhsh, Paloni, and Yousseff, 2001; Majocchi and Strange, 2007; Botric and Skuflic, 2006) witness a merely positive and significant relationship. Foreign Direct Investments enhance exports and import substitution, while intensifying trade of intermediary inputs (Goldberg and Klein, 1997). Countries that are substantially engaged in international trade are considered by international investors as preferred locations for investments as these countries have been found to have better property rights protection (Ayyagari et al, 2005), better macroeconomic policies (Bonaglia et al, 2001), while also opportunities that could improve substantially an MNE's international trade position.

Of primary importance in the list of FDI determinants is also the existence of natural resources and especially those that are characterized as strategic (oil, coal, gas, iron, etc.). Some of the transition countries have rich natural endowments. One of them, Russia is the second country with the largest oil extraction capacity in the world after Saudi Arabia, while Kazakhstan and Azerbaijan are also listed among the 25 largest oil producing countries (CIA World Fact book, 2007). The limited reserves globally, while also the fact that these resources are the basis for several important industrial sectors provides them with a timely persistence in the top of the FDI interests and preferences. (Campos and Kinoshita, 2003; De Melo, 1997, 1999; Asiedu 2006). It is also important to mention that emerging economic powers like China have demonstrated a remarkable performance in pursuing strategic asset resources seeking FDI (Deng, 2004). However there are studies (Asiedu and Lien, 2004) that support the opposite view, that actually FDI are crowded out by the existence of natural resources, due to an increase in the demand in the non-tradable sector which generates inflation and due to the fact that natural resources (especially oil) are characterized by booms and bursts, leading to increased volatility in the exchange rate, which in turn triggers inflation and macroeconomic uncertainty that deter FDI.



Another important FDI determinant in the literature is host country's infrastructure level. Adequate and sophisticated infrastructure is able to stimulate FDI flows as it provides means and facilities that ease MNEs investments' operation (Asiedu, 2002; Loree & Guisinger, 1995; Wheeler & Mody, 1992). Infrastructure significance as an FDI determinant is almost uniform for all kinds of economies, either emerging (Ardak and Tatoglu, 2002; Mollick et al, 2006; Zhou et al, 2002)), developing (Asiedu, 2002, 2006) or developed and industrialized (Billington, 1999).

Human Capital is another important FDI determinant. Its impact on FDI can be considered both in terms of quality and quantity. Regarding the quality aspect, or human capital skills level in other words, Lucas (1990) states that the lack of human capital discouraged foreign investors in less developed countries. Zhang and Marcusen (1999) developed a model in which the availability of skilled human capital is considered to be a requirement of foreign investors and subsequently affects the volume of incoming FDI. Dunning (1998) also states that the levels of skills of the available labor force influences both the amount of incoming FDI and their kind in terms of sophistication. Seyf (2001) focusing on Japanese manufacturing FDIs in Europe and the ways in which globalization determined their investing decisions demonstrated also human capital's significant role. Noorbakhsh et al (2001) showed empirically that skilled and educated labor force is significant for incoming FDIs with a high importance grade, which becomes more increasing with time. Narula (1996) in a study focused on 22 developing economies showed that as countries become more developed the significance of human capital in attracting foreign investments increases. Borenstein et al (1995) stated that the existence of an adequate human capital threshold is the crucial condition for attracting growth enhancing foreign investors. In the same line Hanson (1996) showed that the increased human capital together with factors like political stability and property rights are significant FDI determinants in a sample of 105 developing countries.

Regarding the quantitative aspect of human capital parameter, the existence of adequate labor force available for hire is certainly a positive location advantage for a country. And this availability is in several cases linked to increased unemployment. Foreign Investments actually consider in several cases high unemployment presence as an

advantage merely in operational cost terms (Friedman et al, 1992; Billington, 1999; Barros and Cabral, 2000).

In the Human Capital wider context, good living conditions in the host economies are a crucial factor in the formulation of a positive and encouraging investment climate. As such, it usually forms a quality indicator of the existing human capital. Healthier workers are able to acquire more job experience and this can lead to higher productivity (Strauss and Thomas, 1998). Moreover, as Bloom et al (2003) mentioned, good living conditions that can lead to increased longevity can also generate the need for retirement income and savings, which in turn also encourages investment. At the same time, a healthy population can create a larger and more dynamic market, with more sophisticated patterns of demand. Additionally, improved health optimizes the returns of education and worker experience. Therefore, health is an index of the quality of human capital which promotes economic performance both in microeconomic and macroeconomic levels. Regarding the impact of health on Foreign Direct Investment, the World Health's Organization's Commission on Macroeconomics and Health (2001) stresses the importance of a healthy working force and its impact on productivity which in turns attracts foreign investments. Alsan et al (2006) conducted a panel-data analysis of 74 industrialized and developing countries, during the period 1989-2000, focusing on the role of life expectancy in FDI flows. Their empirical results showed that life expectancy was indeed a strongly significant FDI determinant and that raising life expectancy by one year, could result in FDI inflows increase by 9%, after controlling for a series of other parameters.

As the focus of the study is on transition countries, the transition process itself must also be considered as an FDI determinant. The transition process and its constituents were analyzed in detail in Chapter 3. A phenomenon which characterized transition process was the actualization of massive privatizations. Nellis (1998) provides evidence that during transition a number of around 60,000 companies were privatized in the countries of study, when in the non transition countries, the corresponding number was less than 7,000. The transition from the model of a centrally planned economy, to that of an open market economy, meant that the vast majority of the productive structure had to be taken out of the hands of the state and given to the private sector. The privatization process in the countries of interest included some strategic state companies, e.g. in the

telecommunications, transport and/or energy sectors, the acquisition of which would confer tremendous advantages on the future owners. Moreover, as the required capital has rarely been found within the transition countries, it could be assumed that the privatization parameter is one of the most significant FDI determinants. Privatization schemes both in large and small scale can be seen by foreign investors as indications that there is a positive attitude towards private and foreign firms (Trevino et al, 2002). Merlevede and Schoors (2005), studied the FDI determinants, during the period 1992-2000, in eight new member states of the European Union (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia, Romania and Bulgaria – the latter two being full EU members), and displayed the significant relation between FDI flows and certain privatization methods. More specifically, direct privatization methods were found to be highly significant and positive as FDI determinants, whereas the rest of the privatization methods (indirect ones, according to the authors, like voucher and internal privatizations) were rather insignificant, implying the lack of foreign interest for privatization modes other than the direct acquisition. Holland and Pain (1998), in a similar study focused on 10 transition countries, in the period between 1992 and 1996, also showed the high significance of the privatization method (especially direct sale) as an FDI determinant.

In the context of transition related variables, the introduction and implementation of competition policies is another important variable. The essence of transition was the creation of new markets (Bevan et al, 2004), and its actualization was a difficult task. The introduction of open market rules in the transition countries was at the same time both a challenge and a risk as competition in these markets lacked previous experience resulting to the new markets being a fertile ground for all sorts of market abnormalities. Competition policies implemented by Governments were the only measures able to contribute to this task and prevent the appearance of oligopolistic schemes, or barriers that could potentially impede foreign entrants (Noland, 1999). In this context, measures for domestic price liberalization could promote competition, reduce market particularities that favour bureaucratic interference, weaken the position of incumbent firms and create new market opportunities (Mazocchi and Strange, 2007). However, the introduction of such measures could result to negative impacts on domestic firms by creating conditions that favoured unilaterally foreign firms and crowding out the domestic ones.

In the same context of transition process related determinants, are the financial system measures and changes. Finance is essential for every kind of investment. Bearing in mind that during the centrally planned regimes capital controls were tight, it is obvious that financial liberalization and diminished capital controls are crucial parameters influencing positively any potential foreign investments. Gastanaga et al. (1998), Desai et al. (2002) while also Mody and Murshid (2002) provided evidence that capital controls deter FDI significantly. Asiedu and Lien (2004) demonstrated a negative and significant relation between capital control and FDI, especially in the years after 1990. Bevan et al (2004) found that banking sector reform was an institutional development with a significant impact on FDI. Regarding transition economies, Majocchi and Strange (2007) found that inward FDI were positively correlated with financial liberalization, but rather uncorrelated with the percentage of foreign banks to the total number of banks present in the transition countries.

Another FDI determinant with proven significance is the government expenditure levels. Transition economies were characterized, during the previous regime, by huge state mechanisms and vast government expenditure. As national income distribution patterns did not change immediately with the transition process initiation, it is important to study government expenditure's impact on incoming FDIs. Bairam and Ward (1993), focused on this relation in 25 OECD countries, during the period 1950-1988 and found that increased government expenditure "crowded out" FDI. Wang (2005) researched the Canadian economy from 1961 to 2000, and showed that government expenditure on education and health had positive effects on private investment. However, state expenditure on capital and infrastructure had negative effects on private investment, whilst funding of social services had no significant effect at all. Majocchi and Strange (2007) used the percentage of Government Expenditure on GDP as an index of market liberalization with lower values denoting a more liberal market regime. However, in his study focusing on Italian FDI, he found no significance at all for the particular variable.

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### ***7.3 Theoretical Justification for the Included Variables***

The discussed variables in the literature review section will be embodied in an empirical model. Before its construction, it is important to examine, apart from the empirical literature that has already used them extensively, the theoretical foundations of their inclusion in a model describing inward FDI determinants.

The selected variables are contextualized completely in the FDI's theoretical framework and provide an opportunity to test whether some of the presented theories have an explanatory power in the transition countries of the study.

The International Trade and Investment theory displays the production, co-ordination and know how costs as the basic FDI determinants. In its context, host country's infrastructure levels, trade policies and openness can display co-ordination parameters, while labor availability in terms of unemployment level can indicate reduced labor and production costs opportunities.

The Product Life Cycle theory highlights the conditions under which FDI appear, which are again production cost, standardized production (implying low skilled labor needs), while also easy and cheap access to international markets. In this framework labor availability, human capital education level, transportation and communication infrastructure, financial regulations (as measures that could allow cheap domestic access to finance), while also international trade policies and openness can embody Product Life Cycle theory's main aspects.

Appropriability theory shows that it is the need of an MNE to protect their know-how advantages from being leaked to competitors that drives them to foreign investments than the direct market solution. Monopolistic schemes, the existence of high skilled labor forces while also market in need of sophisticated products are the main FDI determinants according to appropriability theory. In this context, privatizations, labor force educational level and living standards (expressed through life expectancy) can display appropriability's theory main views.

The internalization theory introduces market imperfections as FDI main determinants. The existence of trade barriers, while also the lack of competition regulations, the existence of monopolistic structures and the government intervention extent are the internalization's theory primary FDI determinants when combined to other determinants like the existence of natural resources, low production cost parameters or large market potentials. Apart from these, variables like the existence of certain strategic natural resources can also be categorized as internalization related ones, because their markets are particularly imperfect with high entry barriers and strong oligopolistic features. This theoretical framework brings out variables like openness and trade obstructing policies, large scale privatizations of firms with dominant market position, government expenditure as percentage of GDP as an indication of government intervention extent, but also the existence of strategic type natural resources.

Dunning's eclectic theory largely combines certain parts of all other theories by putting them in a context that contains both MNE's and host country's advantages and market features (mainly imperfections leading to internalization decisions). The range of variables is really wide. Market potential expressed through GDP growth, infrastructure, geographical specifications, natural resources, human capital skills level, living standards, and government interventions.

Finally Dunning's Investment Development Path which is based mainly on eclectic theory is focused particularly on host country's development level that will potentially allow it to deal more efficiently with MNEs for more sophisticated and more beneficial foreign investments. In this context, infrastructure level in various forms (e.g telecommunication networks, water system, rails, roads, etc), while also living standards indications together with educational levels are particularly important as FDI determinants.

The following table summarizes the selected variables together with the corresponding FDI theory in which they are contextualized.

Table 7.1 Selected variables and FDI theoretical correspondence

Variable	Trade and Investment Theory	Product Life Cycle theory	Appropriability Theory	Internalization Theory	Eclectic Theory	IDP
GDP growth	x	x			x	x
Natural Resources	x	x		x	x	x
Openness	x	x	x		x	x
Living Standards				x	x	x
Govt Expenditure				x	x	x
Education level			x		x	x
Unemployment	x	x			x	x
Privatizations			x	x	x	x
Price Policies				x	x	x
Trade and Forex Policies	x	x		x	x	x
Competition policies	x	x		x	x	x
Financial System	x	x	x		x	x
Infrastructure	x	x	x		x	x

#### 7.4 Empirical Model and Variables

The empirical analysis builds upon the previously presented stream of literature and the majority of the main FDI theories presented in chapter 2. The model which is developed is the following:

$$FDI = Constant + a \text{ GDP GROWTH}(-1) + b \text{ OIL and NATURAL GAS PRODUCTION} + c \text{ OPENNESS} + d \text{ LIFEEXPEC} + e \text{ GOVEXP} + f \text{ BASIC SCHOOL ENROLMENT} + g \text{ UNEMPLOYMENT} + h \text{ REGIONAL DUMMY} + i \text{ TRANSITION INDICATOR, (Large Scale Privatizations, Small Scale Privatizations, Price Liberalization, Trade and Forex, Competition Policy, Banking Reform, Infrastructure)} + \varepsilon_{it}$$

The variables used are described below:

*FDI stock*

This is the dependent variable and it is the FDI Stock as a percentage of GDP. FDI stock data was taken from the World Investment Reports (1992-2006).

*Economic Growth*

Economic growth is expressed as the percentage of GDP annual growth. The corresponding data was taken from the on line World Development Indicators (provided by ESDS). Lagged use of the variable helps face potential endogeneity problems.

*Oil and Natural Gas Production*

Many of the transition countries, especially the ex-Soviet ones, possess significant energy resources, which are considered to be of strategic importance. This piece of information was not used in chapters 5 and 6 as the bilateral FDI data bases did not contain adequate coverage of the particular transition economies. In order to include this information in the empirical analysis at this stage, some data about energy resources production had to be used and this was proxied by the measures for oil and natural gas production. These were taken from the International Energy Agency (IEA) Key World Oil Statistics (on line access through ESDS) and oil production is given as crude oil and NGL production in thousands of tons. This variable includes also oil additives and other hydrocarbons.

*Openness*

Openness is expressed as the ratio of imports and exports to total GDP. Data was taken from the on line World Development Indicators (access through ESDS).

*Life Expectancy*

Data for life expectancy variable, which will display living standards, was taken from the on line World Development Indicators database (access through ESDS).



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*Government Expenditure (%GDP)*

Government expenditure as a percentage of total GDP is taken from on line WDI (ESDS). According to the World Development Indicators (WDI) guide, general government final consumption expenditure includes all government current expenditures for purchases of goods and services including compensation for employees.

*Basic School Enrollment*

Data for Basic School Enrolment was provided by EBRD 2007 transition indices.

*Unemployment rate*

Data for Unemployment rate was taken from EBRD 2007 transition indices tables

*Regional Variables*

Using as base the Ex-Soviet Countries, two dummies were created referring to the Balkans and the Central European countries.

***TRANSITION INDICATORS***

The transition indicators were taken from EBRD 2007 transition indicators database and all of them were scaled. Their scaled values are described below.

*Large-scale privatization*

- 1 Little private ownership.
- 2 Comprehensive schemes almost ready for implementation; some sales completed.
- 3 More than 25 per cent of large-scale enterprise assets in private hands or in the process of being privatized.
- 4 More than 50 per cent of state-owned enterprise and farm assets in private ownership and significant progress with corporate governance of these enterprises.
- 4+ Standards and performance typical of advanced industrial economies: more than 75 per cent of enterprise assets in private ownership with effective corporate governance.

*Small-scale privatization*

- 1 Little progress.
- 2 Substantial share privatized.
- 3 Comprehensive programs almost ready for implementation.
- 4 Complete privatization of small companies with tradable ownership rights.
- 4+ Standards and performance typical of advanced industrial economies: no state ownership of small enterprises; effective tradability of land.

*Price liberalization*

- 1 Most prices formally controlled by the government.
- 2 Some lifting of price administration; state procurement at non-market prices for the majority of product categories.
- 3 Significant progress on price liberalization, but state procurement at non-market prices remains substantial.
- 4 Comprehensive price liberalization; state procurement at non-market prices largely phased out;
- 4+ Standards and performance typical of advanced industrial economies: complete price liberalization with no price control outside housing, transport and natural monopolies.

*Trade and foreign exchange system*

- 1 Widespread import and/or export controls or very limited legitimate access to foreign exchange.
- 2 Some liberalization of import and/or export controls; almost full current account convertibility in principle.
- 3 Removal of almost all quantitative and administrative import and export restrictions; almost full current account convertibility.
- 4 Removal of all quantitative and administrative import and export restrictions (apart from agriculture) and all significant export tariffs.
- 4+ Standards and performance norms of advanced industrial economies: removal of most tariff barriers; membership in WTO.

*Competition policy*

- 1 No competition legislation and institutions.

- 2 Competition policy legislation and institutions set up; some reduction of entry restrictions or enforcement action on dominant firms.
- 3 Some enforcement actions to reduce abuse of market power and to promote a competitive environment.
- 4 Significant enforcement actions to reduce abuse of market power and to promote a competitive environment.
- 4+ Standards and performance typical of advanced industrial economies: effective enforcement of competition policy; unrestricted entry to most markets.

#### *Banking reform and interest rate liberalization*

- 1 Little progress beyond establishment of a two-tier system.
- 2 Significant liberalization of interest rates and credit allocation; limited use of directed credit or interest rate ceilings.
- 3 Substantial progress in establishment of bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalization with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks.
- 4 Significant movement of banking laws and regulations towards BIS standards; well-functioning banking competition and effective prudential supervision; significant term lending to private enterprises; substantial financial deepening.
- 4+ Standards and performance norms of advanced industrial economies: full convergence of banking laws and regulations with BIS standards; provision of full set of competitive banking services.

#### *Infrastructure reform*

The ratings are calculated as the average of five infrastructure reform indicators covering electric power, railways, roads, telecommunications, water and waste water.

The classification system used for these five indicators is detailed below.

##### *Electric power*

- 1 Power sector operates as government department with few commercial freedoms or pressures.
- 2 Power company distanced from government, but there is still political interference. Some attempt to harden budget constraints, but effective tariffs are low.

- 
- 3 Law passed providing for full-scale restructuring of industry, including vertical unbundling through account separation and set-up of regulator.
  - 4 Separation of generation, transmission and distribution. Independent regulator set up. Rules for cost-reflective tariff-setting formulated and implemented.
  - 4+ Tariffs cost-reflective and provide adequate incentives for efficiency improvements. Large-scale private sector involvement in the unbundled and well-regulated sector.

### *Railways*

- 1 Monolithic structure operated as government department, with few commercial freedoms. No private sector involvement and extensive cross-subsidization.
- 2 Rail operations distanced from state, but weak commercial objectives. Some business planning, but targets are general and tentative.
- 3 Commercial orientation in rail operations. Freight and passenger services separated and some ancillary businesses divested.
- 4 Railways fully commercialized, with separate internal profit centers for freight and passenger services. Extensive market freedoms to set tariffs and investments.
- 4+ Separation of infrastructure freight and passenger operations. Full divestment and transfer of asset ownership implemented or planned, including infrastructure and rolling stock.

### *Roads*

- 1 Minimal degree of decentralization and no commercialization. All regulatory, road management and resource allocation functions centralized at ministerial level.
- 2 Moderate degree of decentralization and initial steps in commercialization. Road/highway agency created.
- 3 Fair degree of decentralization and commercialization. Regulation and resource allocation functions separated from road maintenance and operations. Private companies able to provide and operate roads under negotiated commercial contracts. Limited public consultation/participation and accountability on road projects.
- 4 Large degree of decentralization. Transparent methodology used to allocate road expenditures. Track record in competitive procurement of road design, construction, maintenance and operations.
- 4+ Fully decentralized road administration. Commercialized road maintenance operations competitively awarded to private companies. Road user charges reflect the

full costs of road use and associated factors, such as congestion, accidents and pollution. Widespread private sector participation in all aspects of road provision.

#### *Telecommunications*

- 1 Little progress in commercialization and regulation. Minimal private sector involvement and strong political interference in management decisions.
- 2 Modest progress in commercialization. Corporatization of dominant operator and some separation from public sector governance, but tariffs are still politically set.
- 3 Substantial progress in commercialization and regulation. Telecommunications and postal services fully separated; cross-subsidies reduced.
- 4 Complete commercialization, including privatization of the dominant operator; comprehensive regulatory and institutional reforms. Extensive liberalization of entry.
- 4+ Effective regulation through an independent entity. Coherent regulatory and institutional framework to deal with tariffs, interconnection rules, licensing, concession fees and spectrum allocation.

#### *Water and waste water*

- 1 Minimal degree of decentralization; no commercialization. Services operated as vertically integrated natural monopolies by government ministry or municipal departments.
- 2 Moderate degree of decentralisation; initial steps towards commercialization. Services provided by municipally owned companies. Partial cost recovery through tariffs; initial steps to reduce cross-subsidies.
- 3 Fair degree of decentralization and commercialization. Water utilities operate with managerial and accounting independence from municipalities, using international accounting standards and management information systems.
- 4 Large degree of decentralization and commercialization. Water utilities managerially independent, with cash flows – net of municipal budget transfers – that ensure financial viability.
- 4+ Water utilities fully decentralized and commercialized. Fully autonomous regulator exists with complete authority to review and enforce tariff levels and quality standards. Widespread private sector participation via service/ management/lease contracts. High-powered incentives, full concessions and/or divestiture of water and waste-water services in major urban areas.

It is important to highlight the commercialization character of the infrastructure related variables. This feature adds the exploitation aspect on infrastructure importance.

### ***7.5 The Database and the Methodology***

As the available data referred to a series of different countries over a number of years, the most appropriate method was the use of panel-data analysis. As it was discussed in the previous chapters, panel data analysis has a series of advantages which are related to the much larger degrees of freedom and its ability to address omitted variable bias and heterogeneity problems, that can arise in cross section studies.

One of the major problems encountered, was the missing values for several years. The number of participating countries is 27 and the time period covers 16 years (1989 – 2005). Therefore, in its optimum case, the entire data set would give for each parameter a total of 432 observations, which is statistically satisfactory. However, the real numbers were far lower, as during the transition process several countries did not record appropriate data. In addition, owing to the fact that the missing values were not the same for all the countries, the overall number of observations that could be used for the empirical analysis was further limited.

The average number of observations was around 180 and this imposed an additional problem for the analysis. As was mentioned in the beginning of this chapter and also throughout this entire dissertation, the analysis is based, to a large extent, on a comparison between three different transition zones. The most effective method for comparing the data between the three regions would be to create three separate databases. However, given the limited data available, such a procedure would only have provided 40 observations in the best case and therefore the results would have had doubtful reliability. For this reason, the necessary regional differentiation was achieved with the help of regional dummy variables, each of which represented the region in which its country belongs.

### ***7.6 Variables Testing - Empirical Method***

The correlation matrix is given in the appendix. The included variables are not highly correlated apart from the EBRD transition indicators, which for this reason, were not used simultaneously in the regressions.

Variables were also tested for stationarity using the Levin, Lee, Chu and the Phillips Peron methods and the corresponding results are given also in the appendix.

Regarding the applied method of analysis, both the Random Effects and the Fixed Effects methods were used as the developed empirical model contains dummy variables, which cannot be processed when using only the fixed effects method (LSDV).

The advantages of using panel data are:

- a) The much larger degree of freedom in comparison with cross-sectional or time-series studies and its subsequent precision of regression estimates increase.
- b) The ability to control for omitted variable bias and heterogeneity problems that often arise in cross-sectional investigations. This is important because it is likely that there will be a number of country-specific factors that cannot be directly incorporated into the regression equations.

In order to check for omitted variables specification issues and despite the fact that the panel data analysis is considered as widely approved method that faces efficiently such problems, another test was carried out to secure completely. The database was averaged for all years and it was transformed to a cross section database, in which the RESET test was applied to. The statistics have shown that the developed model was not suffering from omitted variables misspecification.

### ***7.7 Discussion of the Results***

Tables 4 and 5 in the Appendix include the results of the empirical analysis. Regarding the technical aspect of the statistical analysis, the results in all cases demonstrate a satisfactory performance in terms of  $R^2$ , which is above 0.5 in all random effects

method and over 0.6 for the fixed effects method. AR statistics show that there is limited possibility of autocorrelation. F statistic equals to zero in the vast majority of the regressions.

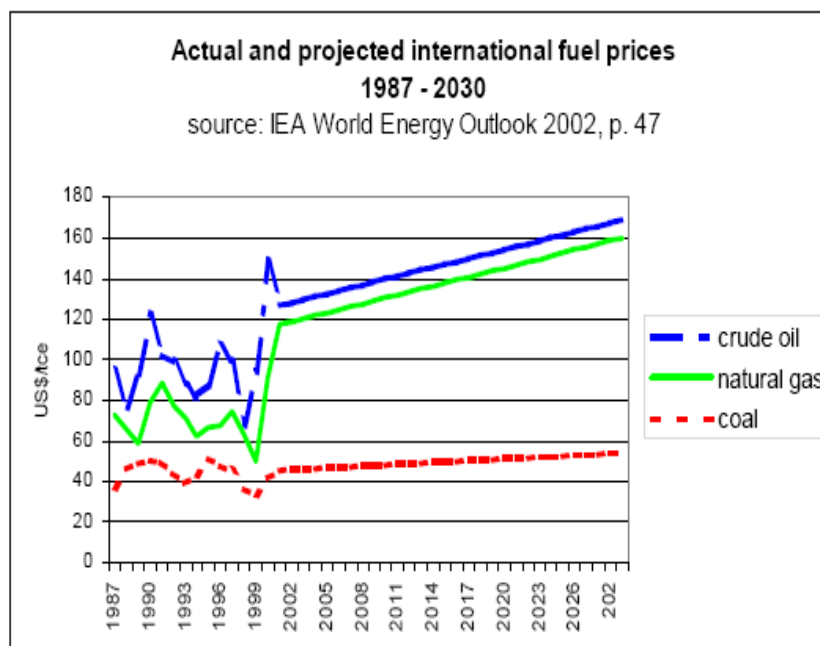
### *Economic Growth*

Economic growth is always positive and highly significant in all cases denoting that FDI are significantly correlated to the transition countries market potential. A large part of the literature is confirmed by the findings (Lipsey, 2000; Dunning, 1970; Ram and Zhang, 2002; Seyf, 2001; Ardak and Tatoglu, 2002). Economic growth is an indication that the market will grow in the future and by that it will create additional opportunities as consumption and demand will increase. It is important to recall the fact that the transition countries overall market counts almost 400 hundred millions, which is a market much larger than the USA and Europe together. Establishing a position in such virgin markets is able to provide new opportunities to MNEs and improve their international positions. The results clearly indicate that FDIs in the transition countries are certainly market –seeking.

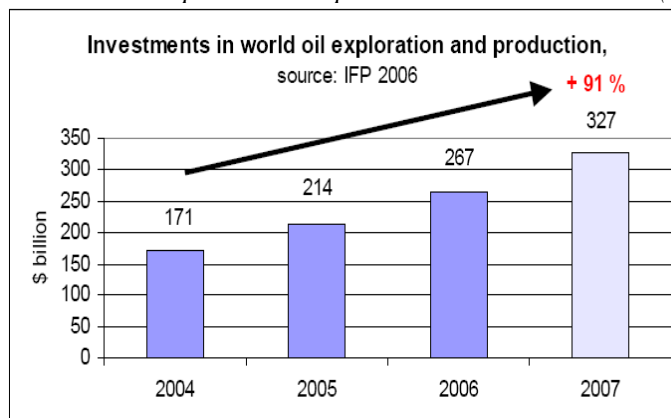
### *Oil and Natural Gas Production*

Oil and natural gas production demonstrates a uniform positive significance in all regressions. The existence of some of the world's most important energy resources in certain transition countries is undoubtedly a strong attractive parameter for foreign investments. The following diagram (Brendow, 2006) displays fuel prices and their projected future levels, according to the increase in their demand.



*Graph 7.1 Actual and Projected International Fuel Prices. Source: Brendow (2006)*

Fossil fuels and oil prices have followed a fluctuating course so far, but will be steadily increasing in the long term, owing to a combination of high energy demand, limited and exhausting resources and strong speculative forces. This upward motion, despite the expected fluctuations from time to time, will lead to subsequent investments increase, as new energy fields will have to be found and exploited. Moreover, due to price elevation, existing but non exploited oil fields that were considered as non-profitable in the past will become profitable in the future and will attract the appropriate investments. Deng (2004) described extensively the rush for Chinese strategic resource seeking FDIs. The following graph demonstrates oil sector investments increase

*Graph 7.2 Investments in world oil exploration and production. Source: Brendow (2006)*

According to the diagram, the investment increase, in terms of capital between 2004 and 2007, was over 90%. It is important also to bear in mind that the investments in the fossil fuel energy sector, even in the smaller level require considerable capital amounts, which can only be delivered by few MNEs that dominate the particular sector globally.

The fact that the particular sector is highly concentrated with entry barriers posed by the few participants in it indicates that similar entry barriers will be set in the transition host countries, using all means available for that.

### *Openness*

The variable that displays trade openness is always positive and strongly significant highlighting variable's foreign investment enhancing role. This confirms that part of the literature that supports the complementary nature of trade and investment (Sin and Leung, 2001; Sun et al, 2002; Asiedu, 2002; Morrisset, 2000; Noorbakhsh, Paloni, and Yousseff, 2001; Majocchi and Strange, 2007; Botric and Skuflic, 2006; Goldberg and Klein, 1997). This finding confirms the findings of chapter 4, 5 and 6 in which it was demonstrated that FDI firms were significantly involved in export activities or positively correlated to trade promoting policies.

Trade openness is an index of property rights protection, existence of import and export channels enhancing production disposal, while also of a sophisticated market with developed needs in terms of products and services.

The findings reveal some of FDI's deeper incentives, which were discussed in the previous chapters, that is, MNEs' use of the transition countries as locations from which they are able to improve their exports and their international trade position, which in turn indicates additional incentives, like reduced production cost conditions, or vicinity to larger markets. Additionally, it confirms apart from Dunning's eclectic paradigm theoretical approaches like Vernon's product cycle as it actually implies that FDI in the transition countries actually produce standardized products, which then are channeled to international trade. It certainly does not advocate appropriability's theory provisions for MNEs proceeding to FDI for reasons of protecting their technological advancements from being leaked to competitors, as FDI's trade related preferences and relations confirm the opposite.

### *Life Expectancy*

Life expectancy is positive and strongly significant in all cases. The results confirm the findings of Alsan et al (2006), who described a significant relationship between inward FDI and host countries' living conditions. High living standards can lead to the demand for more sophisticated products and services, which MNEs can provide. Apart from that, life expectancy itself denotes a good health system, an adequate infrastructure and social network, while also a good educational level. All these are different aspects of human capital, whose importance for foreign investments is known. Transition countries and specially those of the Balkan and the Central Europe had similar life expectancy to the rest of the European Countries, denoting a good quality of existing human capital (Spagat, 2006) and uniform living standards and traditions. The variable's behavior shows that FDIs among others are certainly market-seeking ones. At the same time adds up to confirming Investment Development Path theory that highlights host country's development level as a prerequisite for attracting high quality foreign investments.

### *Government Expenditure*

Government expenditure, as GDP share, demonstrates significance in the majority of the regressions, always with a negative sign. According to its definition, government expenditure is related to government spending for goods, services, education while also for workers' compensation. Usually, a high value for the variable is related to high taxation levels, as these are the main capital sources for state expenditure and the variable's behavior can be seen in this way. Additionally, government expenditure can be seen as government size indicator. A large government size can be linked to issues like resource waste and organizational inefficiency, which in some cases imposes additional burdens on FDI operation. Taxation, inefficiency and a large and slow moving bureaucracy are certainly FDI deterrents, but infrastructure and education that can add to the expertise of human capital, are positive determinants. Government Expenditure (as % of GDP) can be also seen as an index of transition progress (Majocchi and Strange, 2007) embodying the idea that the smallest the participation of the state in the GDP the greater the progress of the state towards open market standards. Therefore, the negative sign and its significance can be seen as FDI preference for

locations with faster transition progress, in which they will be free to develop their activities without severe state interventions and restrictions.

#### *Basic School Enrolment*

The variable does not bear significance but in certain regression cases. In general, it does not demonstrate the expected behavior, that of the strongly significant and positive correlation with FDI. This shows that inward FDI in the transition countries are not quite interested for labor force skills, implying that their investments are quite standardized and not particularly sophisticated, which in turn confirms Vernon's product life cycle theory. However, according to Dunning's Investment Development Path theory, the findings cannot support strongly the view of development promoting foreign investments. However, it is necessary to mention that the limited available data for the studied time periods may be responsible for the fact that the results are not coherent.

#### *Unemployment*

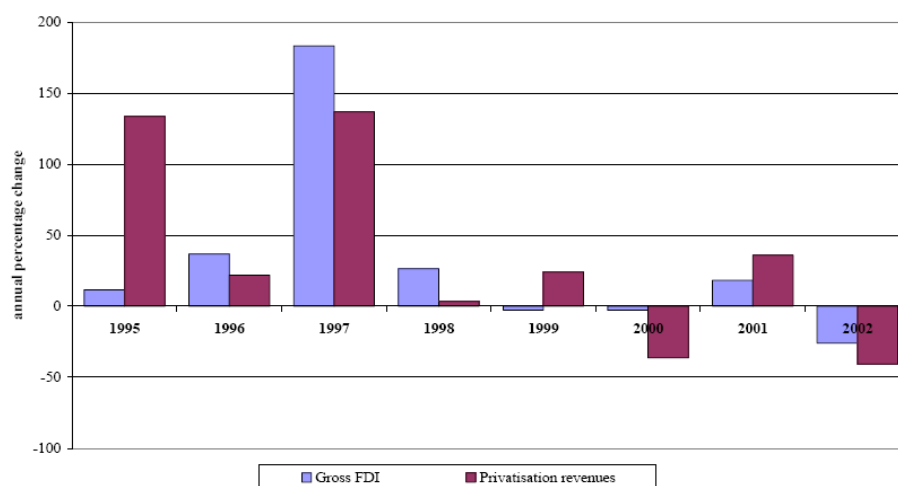
Unemployment bears a positive sign and is significant in the majority of the random effects regressions. The variable can be seen as an indication of labor availability and cost. FDI appear to be rather significantly present to the states where unemployment rates are high. The fact that significance is limited, witnesses a view of FDI that are actually interested in finding cheap labor cost, but without having this as a primary goal as there might be more important incentives justifying FDI presence (e.g. Natural resources or market seeking opportunities).

Unemployment's significance advocates for all production cost minimizing FDI theories, that is, Vernon's product cycle, and Hirschman's trade and investment theory. It fits also pretty well within Dunning's eclectic paradigm and more specifically in the L-type group of variables. Unemployment's significance implicitly highlights low skilled labor force needs for inward foreign investments in the transition countries, which in turn indicates foreign firm's business sectors of interest characterized by low sophistication and expertise. This can give some idea about the spillover effects related with the particular investments.

### Privatizations

Privatization indices (both small and large scale) have a constant behavior. Their significance level is high and always bears a positive sign, which shows that privatizations have probably been one of the most crucial FDI determinants. The results are in line with the findings of Merlevede and Schoors (2005) and Holland and Pain (1998). A large proportion of the privatized firms in the studied countries ended up in foreign ownership, as these were highly desired target – firms, some of them already holding almost monopolistic positions in the local market. The following graph (Falcetti et al, 2003), based on data from the EBRD and the IMF, and displays the FDI flows and the privatizations in Southeastern Europe during the period 1995 to 2002. It shows that FDI and privatizations in the Balkan Region were highly correlated. According to this study, the correlation coefficient for the Balkan Region was 0.68, whereas for the Central European countries the corresponding coefficient was 0.49.

Graph 7.3 FDI and Privatizations in South Eastern Europe from 1995 to 2002. Source: Falcetti et al (2003)



The following table displays data from the study of Kalotay and Hunya (2000) on FDI and privatizations for the Central and Eastern European transition countries, during the 1990s.

*Table 7.2 Privatization related FDI as a % of total FDI flows. Source: Kalotay and Hunya (2000)*

	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Bulgaria</b>	..	..	8	26	70	33	69	43	48
<b>Croatia</b>	..	..	61	88	95	1	53	76	83
<b>Czech Rep</b>	..	..	87	99	100	92	80	..	..
<b>Hungary</b>	22	33	28	9	68	32	15	1	0
<b>FYROM</b>	..	..	..	..	..	..	57	25	35
<b>Moldova</b>	..	..	100	100	97	82	55	..	..
<b>Poland</b>	14	72	20	12	27	15	17	7	..
<b>Romania</b>	..	..	17	17	40	11	51	84	..
<b>Russia</b>	..	..	..	..	..	..	43	0	0

As it can be seen, in most of the cases foreign investments in the transition countries, referred to privatizations. .

The question that needs to be addressed, however, is whether these forms of FDI bring the same benefits to the host country as Greenfield FDIs. Privatization cases were actually acquisitions of existing firms, most of them already operating and contributing to the host economy. Despite the fact that a new owner with experience in the business environment would be expected to improve business performance, the purchase itself would not contribute the same in the host economy as it would in the case of it being a start up investment. Birdsall and Nellis (2003) studied the privatization process and the equity and efficiency gains from it. Focusing on the distributional effects of the whole process, that is, on the issues of asset ownership, employment and returns to labor, for Latin America and the transition countries, the authors concluded that the privatization process actually worsened the assets and the income distribution of these regions. Moreover, it emerged that these outcomes were worse in the transition economies than in the Latin American countries. The same conclusions were reached in a study by Alexeev (1999), who studied the effect of privatization on wealth distribution in Russia. Apart from these studies, there has been research like that of Kaufmann and Siegelbaum (1997), which highlighted the parallel trends of the privatization process and corruption in the transition economies. This finding can be combined with the results in Chapters 5 and 6, which demonstrated FDI corruption encouraging role.

An additional issue arising is whether privatizations were particularly encouraged by the turbulent and, in several aspects, abnormal character of the transition process itself. Krugman (1998), focusing on the Asian crisis of the 1990s, investigated the phenomenon of high numbers of domestic Asian firms being sold to foreign firms

during that turbulent period. He argued that during crises, the liquidity constraints and other economic conditions make it easy for domestic firms to be bought by foreign firms who have the financial strength to do so. Moreover, according to the author, these firms would never have attempted such moves, if there had been no crisis and therefore, the crisis may have acted as a kind of catalyst for attracting foreign capital. The same could be assumed to have also taken place in the transition economies. Despite the fact that the general FDI theories state that the existence of a smooth economic environment actually encourages foreign investors, the evidence may denote that the really big bargains appear during tempestuous times.

### *Price Liberalization*

Price Liberalization does not bear any significance in both Random and Fixed Effects Method, showing that FDIs are indifferent to price policies. Such an attitude is partly paradoxical as FDIs are significantly correlated with the rest of the transition indicators. This outcome can be justified only in those cases that FDI are actually indifferent for the price of their products in the domestic market. And this can happen in the following cases:

1. When the primary interest of the foreign investments is to export its products to the international market, which makes the development in the host market rather of secondary importance. This case includes also those FDI investments which refer to strategic resources exploitation as the latter are directed mainly to international markets
2. When the investment refers to the establishment of a monopolistic position in the host market, something that usually is achieved through large scale privatization schemes in critical sectors (e.g. telecommunications, electricity and energy production).

There are strong indications that all these cases above are actually present in the results so far. The existence of natural resources has been found to be one of the most robust and strongly significant determinants, together with trade openness, while it is important to recall chapter's 4 results that displayed a merely exporting character and orientation for FDIs.

*Trade and Forex*

Trade and foreign exchange variable is strongly significant and positive. The variable does not display trade figures, but policies towards trade and foreign exchange (restrictions, trade barriers, policies for certain products, etc). A similar variable was tested in the empirical analysis in chapter 6 and was also found to be positive and significant for foreign investments. Therefore, policies that make trade easier and without restrictions are definitely attracting FDI, whose character as has been described both in chapter 4, are merely export oriented.

*Competition Policy*

Competition Policy is in all cases positive and significant. The corresponding variable displays actually the policies that allow foreign business entities to enter transition countries markets. The higher values of the variable denote completely unrestricted market entrance and cancellation of protection on certain firms or organizations or groups of interests. As such, the findings are rather expected as competition policies actually lift significant obstacles for FDI operation.

*Banking Reforms and Interest Rates*

The particular variable demonstrates a strongly significant character bearing in all cases a positive sign. Banking system's modernization is important for the development of an economy that has decided to adopt open market principles and a sine qua non for the operation of all business firms either domestic or foreign. The significance of this variable has also to be seen in some other prospects. Due to the fact that banking system in the transition states was not developed as in the west, banking market was also a rather virgin market in which several foreign banks would like to enter due to its unique exploitation opportunities. And this is what really happened as some of the largest foreign investments (in several cases through privatization procedures) refer to foreign banks establishment in the transition markets. Therefore, banking reforms were partly the allowance for foreign investments in the banking sector and can be considered also as the establishment of the appropriate competition policies in banking sector. Apart from that, several large MNEs are followed by their banking institutions due to their magnitude and their special financing needs. Therefore, the change of the regime that rules banking and financial acts can be seen as an entering signal for such large MNEs.



The question that arises is whether local banking institutions would have both the financial strength and the ability to compete with their foreign rivals.

### *Infrastructure*

The infrastructure related variables, which is a combination of other variables is also significantly related to the FDIs, in both the random and fixed effects methods. Its behavior is consistent with the vast majority of FDI determinant studies<sup>20</sup>. A certain level of infrastructure is a *sine qua non* for all foreign investments and is absolutely necessary for an effective business operation. For example, the lack of a safe road network that could enable transportation (like exports, imports, transactions), or inappropriate communications, cannot be countered by any other important determinant, except in cases where there are strategic kinds of incentives, e.g. the existence of strategic type energy resources. In the latter case, the attractiveness of the resources sometimes leads to the investor proceeding, on his own, to create additional infrastructure investments to facilitate his investment operation.

However the infrastructure variables used express mainly the privatization and the commercialization of the corresponding related public services. Therefore, the empirical results are rather describing the impact of infrastructure related services commercialization on incoming foreign investments, which is positive, as expected, since it is an indication of exploitation or even privatization opportunities.

### *Regional Variables*

Moving on to the regional parameters, the dummy variables that were introduced into the model demonstrate a constant behavior, as both the Balkan and the Central European country dummies are significant and negative. Due to the fact that the basis for the inclusion of these variables was the Ex-Soviet dummy, the results denote that the investments in Central European and Balkan countries were significantly lower than the investments in the Ex-Soviet countries. This can be explained mainly by the fact that the magnitude of the Ex-Soviet countries (Russia included) was much larger than that of the Central European and the Balkan countries. Apart from that, as the variable that is being used is the percentage of FDI over GDP, it is important to notice that several Ex-

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<sup>20</sup> Because of the consistent behaviour of the infrastructure variable (significant and positive), some empirical studies in the field of FDIs (e.g. Alsan et al (2006)) have used it, in order to check the robustness of the results of the rest of the determinants.

Soviet Economies with Russia included based their economies almost exclusively on the exploitation of their natural resources, which in turn shaped their ratios of FDI over GDP in significantly high levels.

### **7.8 Conclusions**

The analysis presented in this chapter, through a presentation of the empirical results, has allowed for the formation of a clearer picture regarding the parameters that have influenced FDI in the transition economies, over the period 1989 – 2005.

FDIs are correlated with host country's economic growth and with infrastructure levels. Thus, this highlights MNE's significant preference towards countries that display economic development and growth potential.

Host country's openness and trade enhancing policies are positively correlated to incoming foreign investments revealing some of their deeper initiatives, such as exploitation of host country's beneficial production conditions for means of international trade position improvement.

Moving on to the field of investment opportunities, privatizations appear to have been one of the most important FDI determinants for the countries under study and this shows that the providers of international capital have been more interested in obtaining already existing and operating firms, than creating them from scratch. This demonstrates a kind of risk avoidance, but also a preference for getting access to strategic sectors in the transition countries with advantageous positioning. Apart from that, in general, MNEs always try to get access to key markets. The transition process, which involved mass privatizations created situations that actually made this easier.

Foreign investment are also correlated with energy resources presence, which was something expected, bearing in mind that the investments in the particular sector are enormous and as such can only be undertaken by MNEs of remarkable strength and long experience. However, this variable is mainly related to the oil-rich ex-Soviet countries

Moving on to some internal features of the host economies, government expenditure, faced as an indication of the government size (and inefficiency under certain conditions) and as an inverse transition progress indicator was negatively related to FDIs.

The variables that display transition speed are in the vast majority of the regressions strongly correlated in a positive way with incoming foreign investments, displaying the MNE promoting role of the particular measures, which was initially discussed in chapter 3. Price liberalization policies however lacked significance implying that foreign firms were rather indifferent for a series of possible reasons starting from their export orientation and ending to their ability of circumventing policies.

Summing up, FDIs in the transition countries under study could be characterized as entities with a preference for those countries with high levels of openness, infrastructure quality and economic growth, in which privatization and energy resources exploitation opportunities have been promising and the corresponding state's intervention is low in terms of overall expenditure, while the imposed transition measures have been implemented quickly.

## *Appendix of Chapter 7 Tables of Results*

*Table 1 Descriptive Statistics for Participating Variables*

	Mean	Median	Maximum	Minimum	Obs.
FDISTOCK (%GDP)	0.199	0.153	1.545	0	333
ECONOMIC GROWTH	0.840	3.700	88.958	-44.9	427
OIL + GAS PRODUCTION	15813	313.000	523679	0	459
LIFE EXPECTANCY	70.088	70.421	76.567	62.386	363
OPENNESS	94.964	92.817	180.361	22.229	417
GOV. EXPENDITURE	17.317	18.450	30.124	3.446	417
UNEMPLOYMENT	12.283	9.708	42.870	0	377
BASIC SCHOOL ENR.	93.209	94.450	107.500	65.9	372
BALKAN DUMMY	0.259	0.000	1.000	0	459
CEN. EUROPE DUMMY	0.296	0.000	1.000	0	459
SMALL SCALE PRIVAT.	1.784	1.670	3.670	1	458
LARGE SCALE PRIVAT.	2.330	2.330	4.000	1	458
TRADE AND FOR. EXCHANGE	3.024	3.330	4.330	1	458
BANK REFORM AND INTEREST RATES	2.090	2.000	4.000	1	458
COMPETITION POLICY	1.808	2.000	3.330	1	456
INFRASTRUCTURE	1.784	1.670	3.670	1	458
PRICE LIBERALIZATION	3.438	4.000	4.330	1	458

Table 2: Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0.000	0.174	0.014	-0.072	0.293	0.116	0.020	0.092	0.428	0.437	0.355	0.431	0.319	0.428	0.254
2	0.000	1	-0.347	-0.244	-0.137	-0.342	-0.213	-0.064	-0.281	-0.104	-0.093	-0.321	-0.271	0.081	-0.104	-0.171
3	0.174	-0.347	1	0.042	0.252	0.234	0.352	0.285	0.444	0.371	0.200	0.391	0.456	0.195	0.371	0.176
4	0.014	-0.244	0.042	1	0.132	0.077	0.087	-0.196	0.196	0.033	0.070	0.079	0.102	0.193	0.033	0.210
5	-0.072	-0.137	0.252	0.132	1	0.017	-0.083	-0.073	0.246	-0.090	-0.090	-0.090	0.010	0.058	-0.090	-0.045
6	0.293	-0.342	0.234	0.077	0.017	1	0.081	0.320	0.175	0.423	0.415	0.531	0.437	0.102	0.423	0.473
7	0.116	-0.213	0.352	0.087	-0.083	0.081	1	-0.155	0.460	0.335	0.382	0.467	0.478	0.442	0.335	0.222
8	0.020	-0.064	0.285	-0.196	-0.073	0.320	-0.155	1	-0.427	-0.068	-0.101	0.073	-0.074	-0.342	-0.068	-0.052
9	0.092	-0.281	0.444	0.196	0.246	0.175	0.460	-0.427	1	0.428	0.332	0.388	0.517	0.449	0.428	0.269
10	0.428	-0.104	0.371	0.033	-0.090	0.423	0.335	-0.068	0.428	1	0.709	0.622	0.761	0.594	1.000	0.492
11	0.437	-0.093	0.200	0.070	-0.090	0.415	0.382	-0.101	0.332	0.709	1	0.741	0.785	0.639	0.709	0.613
12	0.355	-0.321	0.391	0.079	-0.090	0.531	0.467	0.073	0.388	0.622	0.741	1	0.810	0.495	0.622	0.722
13	0.431	-0.271	0.456	0.102	0.010	0.437	0.478	-0.074	0.517	0.761	0.785	0.810	1	0.628	0.761	0.640
14	0.319	0.081	0.195	0.193	0.058	0.102	0.442	-0.342	0.449	0.594	0.639	0.495	0.628	1	0.594	0.433
15	0.428	-0.104	0.371	0.033	-0.090	0.423	0.335	-0.068	0.428	1.000	0.709	0.622	0.761	0.594	1	0.492
16	0.254	-0.171	0.176	0.210	-0.045	0.473	0.222	-0.052	0.269	0.492	0.613	0.722	0.640	0.433	0.492	1

1. EC. GROWTH
2. OIL + GAS PRODUCTION
3. LIFE EXPECTANCY
4. OPENNESS
5. GOV. EXPENDITURE
6. UNEMPLOYMENT
7. BASIC SCHOOL ENROLMENT
8. BALKAN DUMMY
9. CENTRAL EUROPE DUMMY
10. SMALL SCAL PRIVATIZATIONS
11. LARGE SCALE PRIVATIZATIONS
12. TRADE AND FOREIGN EXCHANGE
13. BANK REFORMS AND INTEREST RATES
14. COMPETITION POLICY
15. INFRASTRUCTURE
16. PRICE LIBERALIZATION

Table 3: Stationarity Tests for Participating Variables

	<i>Method</i>	<i>Statistic</i>	<i>Prob</i>	<i>Cross-Sections</i>	<i>Obs</i>
<b>FDI</b>	Levin, Lin & Chu	-1.56	0.05	26	280
	PP - Fisher Chi-square	70.02	0.07	27	298
<b>EC. GROWTH</b>	Levin, Lin & Chu	-4.04	0	27	364
	PP - Fisher Chi-square	150.91	0	27	396
<b>LLIFEEXPEC</b>	Levin, Lin & Chu	-552.89	0	18	253
	PP - Fisher Chi-square	326.11	0.79	20	279
<b>OPENNESS</b>	Levin, Lin & Chu	-10.55	0	27	367
	PP - Fisher Chi-square	172.90	0	27	390
<b>OIL + GAS PRODUCTION</b>	Levin, Lin & Chu	-147.24	0	21	326
	PP - Fisher Chi-square	296.42	0	22	352
<b>GOV. EXPENDITURE</b>	Levin, Lin & Chu	-251.00	0.006	26	364
	PP - Fisher Chi-square	109.96	0	26	386
<b>UNEMPLOYMENT</b>	Levin, Lin & Chu	-16.62	0	27	329
	PP - Fisher Chi-square	238.18	0	27	348
<b>BASIC SCHOOL ENROLMENT</b>	Levin, Lin & Chu	-5.05	0	27	332
	PP - Fisher Chi-square	5.19	0.04	27	344
<b>LARGE SCALE PRIVATIZATIONS</b>	Levin, Lin & Chu	-46.40	0	26	373
	PP - Fisher Chi-square	-2.38	0.008	26	347
<b>SMALL SCALE PRIVATIZATIONS</b>	Levin, Lin & Chu	-2.81	0.002	25	386
	PP - Fisher Chi-square	64.47	0.11	26	415
<b>TRADE AND FOR EXCHANGE</b>	Levin, Lin & Chu	-23.78	0	26	376
	PP - Fisher Chi-square	108.60	0	26	415
<b>BANK REFORMS AND IR</b>	Levin, Lin & Chu	-17.92	0	24	369
	PP - Fisher Chi-square	4.78	0.06	26	415
<b>COMPETITION POLICY</b>	Levin, Lin & Chu	-13.60	0	24	367
	PP - Fisher Chi-square	71.42	0.01	24	381
<b>INFRASTRUCTURE</b>	Levin, Lin & Chu	-2.81	0.002	25	386
	PP - Fisher Chi-square	64.47	0.11	26	415
<b>PRICE LIBERALIZATION</b>	Levin, Lin & Chu	-10.66	0	25	372
	PP - Fisher Chi-square	214.67	0	27	431

Table 4: Fixed Effects Regressions

	1	2	3	4	5	6	7
ECONOMIC GROWTH (-1)	0.14 (2.2)**	0.12 (2.02)**	0.15 (2.26)**	0.13 (2.19)**	0.17 (2.55)**	0.14 (2.28)**	0.12 (2.02)**
OIL + GAS PRODUCTION	0.065 (2.10)**	0.05 (1.7)*	0.06 (2.00)**	0.06 (2.11)**	0.06 (2.08)**	0.06 (2.20)**	0.05 (1.70)*
OPENNESS	0.096 (2.29)**	0.11 (2.74)***	0.13 (3.2)***	0.13 (2.99)***	0.10 (2.45)**	0.09 (2.36)**	0.11 (2.74)***
LIFE EXPECTANCY	3.06 (3.43)***	2.94 (3.35)***	3.40 (3.66)***	3.36 (3.79)***	3.07 (3.43)***	3.36 (3.37)***	2.94 (3.35)***
GOV. EXPENDITURE	-0.05 (-1.53)	-0.019 (-0.43)	-0.057 (-1.68)*	-0.06 (-1.52)	-0.007 (-0.21)	-0.06 (-1.75)*	-0.019 (-0.43)
BASIC SCHOOL ENR.	0.16 (0.47)	-0.064 (-0.17)	0.202 (0.56)	0.18 (0.51)	0.12 (0.32)	0.011 (0.03)	-0.06 (-0.17)
UNEMPLOYMENT	0.016 (0.81)	0.012 (0.58)	0.03 (1.53)	0.02 (0.89)	0.012 (0.65)	0.005 (0.32)	0.012 (0.58)
LARGE SCALE PRIVAT.	0.088 (2.17)**						
SMALL SCALE PRIVAT.		0.103 (4.01)***					
PRICE LIBERALIZATION			-0.006 (-0.21)				
TRADE AND FOR. EXCHANGE				0.08 (1.99)***			
COMPETITION POLICY					0.12 (3.82)***		
BANK REFORM AND INTEREST RATES						0.11 (3.41)***	
INFRASTRUCTURE							0.10 (4.01)***
Obs.	187	187	187	187	187	187	187
R <sup>2</sup>	0.659	0.672	0.640	0.654	0.673	0.672	0.673
Wald (joint)	167.1 (0.00)***	157.5 (0.00)***	225 (0.00)***	210.2 (0.00)***	242.7 (0.00)***	209.4 (0.00)***	157.5 (0.00)***
AR(1)	2.15 (0.031)**	2.09 (0.03)**	2.173 (0.03)**	2.11 (0.035)**	1.96 (0.05)**	2.38 (0.017)**	2.091 (0.03)**
AR(2)	1.53 (0.10)*	1.55 (0.98)*	1.13 (0.99)*	1.41 (0.88)*	1.58 (0.79)*	0.89 (0.12)	1.55 (0.10)*

In brackets are the t-values. \*\*\* denotes significance at the 1% level, \*\* significance at the 5% level and \* significance at the 10% level.



Table 5: Random Effects Results

	1	2	3	4	5	6	7
CONSTANT	-11.35 (-7.86)***	-9.01 (-5.94)***	-12.15 (-8.85)**	-11.47 (-8.6)**	-11.32 (-7.85)***	-10.05 (-7.09)***	-9.02 (-5.94)***
ECONOMIC GROWTH (-1)	0.18 (4.06)***	0.15 (3.39)***	0.20 (4.3)***	0.17 (3.88)***	0.20 (4.55)***	0.18 (4.02)***	0.15 (3.39)***
OIL + GAS PRODUCTION	0.016 (3.76)***	0.013 (3.14)***	0.017 (4.09)***	0.018 (4.48)***	0.014 (3.15)***	0.016 (4.06)***	0.013 (3.14)***
OPENNESS	0.14 (4.64)***	0.13 (4.71)***	0.15 (5.33)***	0.16 (5.69)***	0.13 (4.44)***	0.14 (5.21)***	0.13 (4.71)***
LIFE EXPECTANCY	2.16 (5.97)**	1.83 (5.12)***	2.26 (6.41)***	2.14 (6.14)***	2.17 (6.02)***	1.91 (5.52)***	1.83 (5.12)***
GOV. EXPENDITURE	-0.07 (-2.24)**	-0.046 (-1.39)	-0.085 (-2.56)***	-0.08 (-2.5)**	-0.062 (-1.84)*	-0.089 (-2.8)***	-0.045 (-1.39)
BASIC SCHOOL ENR.	0.25 (1.40)	0.069 (0.38)	0.32 (1.77)*	0.28 (1.55)	0.22 (1.22)	0.20 (1.13)	0.069 (0.38)
UNEMPLOYMENT	0.019 (1.77)*	0.012 (1.09)	0.028 (2.39)**	0.018 (1.63)*	0.024 (2.23)**	0.013 (1.12)	0.01 (1.09)
BALKAN DUMMY	-0.21 (-4.33)***	-0.18 (-4.03)***	-0.21 (-4.55)***	-0.22 (-4.86)***	-0.20 (-4.04)***	-0.20 (-4.70)***	-0.18 (-4.03)***
CEN. EUROPE DUMMY	-0.17 (-4.01)***	-0.17 (-4.13)***	-0.16 (-3.9)***	-0.18 (-4.31)***	-0.18 (-4.22)***	-0.17 (-4.44)***	-0.17 (-4.13)***
LARGE SCALE PRIVAT.	0.08 (2.8)**						
SMALL SCALE PRIVAT.		0.12 (4.64)***					
PRICE LIBERALIZATION			0.008 (0.21)				
TRADE AND FOR. EXCHANGE				0.077 (2.60)**			
COMPETITION POLICY					0.085 (2.91)***		
BANK REFORM AND INTEREST RATES						0.10 (3.52)***	
INFRASTRUCTURE							0.12 (4.64)***
Obs.	185	185	185	185	185	185	185
R <sup>2</sup>	0.569	0.597	0.539	0.556	0.571	0.564	0.597
Wald (joint)	224.9 (0.00)***	252.5 (0.00)***	198 (0.00)***	212.3 (0.00)***	226.4 (0.00)***	219.4 (0.00)***	252.5 (0.00)***
Wald (dummy)	61.79 (0.00)***	35.23 (0.00)***	78.27 (0.00)***	69.9 (0.00)***	61.67 (0.00)***	50.3 (0.00)***	35.23 (0.00)***
AR(1)	11.96 (0.00)***	12.22 (0.00)***	12.17 (0.00)***	11.73 (0.00)***	12.27 (0.00)***	11.71 (0.00)***	12.22 (0.00)***
AR(2)	5.67 (0.00)***	5.75 (0.00)***	5.78 (0.00)***	5.41 (0.00)***	6.16 (0.00)***	4.92 (0.00)***	5.74 (0.00)***
RESET TEST (*)	0.241 (0.657)	0.345 (0.234)	0.467 (0.723)	0.286 (0.754)	0.337 (0.265)	0.199 (0.222)	0.381 (0.288)

In brackets are the t-values. \*\*\* denotes significance at the 1% level, \*\* significance at the 5% level and \* significance at the 10% level.

(\*) The RESET test statistic refers applies only to the cross section database produced by averaging the variables for all years.

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## ***CHAPTER 8 Conclusions***

The analysis presented in the previous chapters has led to a series of conclusions regarding foreign direct investments in three groups of transition economies. The findings are further described and discussed in the following paragraphs.

### ***8.1 FDI Features***

The data provided by the World Bank and the EBRD surveys (used in the three BEEPS rounds) have revealed certain FDI features in the transition economies. The foreign direct investors have been found to be mainly export oriented and this has been revealed as a key reason for their presence in these countries. In addition, there is some indication that they have focused on the service sector. There is no uniform evidence that shows that they have been more involved in the operation of new plants in the host economies or in the employment of highly skilled personnel than the domestic firms. Their financial sources appear to have been well secured, which has provided them with a particularly strong advantage, as compared to domestic firms which have faced serious problems in accessing finance. The results seen from the domestic firms' aspect pose questions regarding the efficiency of the imposed transition reform measures,

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while also for their actual objectives, as the formulated view- more than one decade after the transition initiation- shows that these were rather favouring foreign investors, than improving domestic economy and business units.

Regarding foreign direct investors' attitudes towards corruption, the results did not support the proposition that corruption deters foreign investments, as the majority of the corruption variables did not emerge as being significant FDI determinants. The state capture variable appears to have been significant only in the case of the ex-Soviet countries, which reveals the fact that during the transition process the foreign investing firms were actively involved in attempting to influence the contents of laws, decrees, etc, so that they would serve better their interests. In general, the results show that corruption does not appear to have been a particularly telling obstacle for them. This of course could be interpreted as an indication of flexibility on their part, as a consequence of their previous experience from facing similar situations in other parts of the world. Whatever the reason, the above disproves, partially, the argument that foreign investing firms are deterred away from situations where there are high corruption levels.

The results lead to the view of the multinational firm as being a highly flexible and adjustable organization with certain strong advantages (financial strength, international experience and exporting skills) that allow it to dominate the market in which it chooses to operate, sometimes by employing questionable means. At the same time they do not have particular disadvantages distinguishing them from domestic firms, for example, corruption problems have been the same for them all. Therefore, the overall assessment for their market position is undoubtedly positive.

## ***8.2 The Impact of Corruption and Governance on FDI***

In the fifth and sixth chapter, the gravity modelling method was adopted and applied to the FDIs in the transition economies and the results confirmed the validity of using this method. More specifically, FDIs were found to be highly correlated with the GDPs of the home and the host countries and the distance between them, the latter having a negative sign. This suggests that FDIs are actually a result of the interaction between the products of two economies and highly sensitive to geographical distance. The latter

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phenomenon appears to be not only due to transportation costs, but also to other factors such as the lack of information available about a particular country. The gravity model was enriched by the inclusion of additional variables, in order to capture some further aspects of the FDI relation between host and home countries. Freedom of trade was found to be always positive and significant for the incoming FDIs, whilst factors like the EU perspective and past colonial links were also found to be positive and strongly significant, thus confirming some aspects of the previous literature on the issue.

In chapter 5 the research was focused on a series of institutional variables, such as: bureaucratic quality, democratic accountability, law and order, socioeconomic conditions, government stability and corruption. Despite the fact that increased socioeconomic conditions were found to be positively correlated to foreign investments, the remaining institutional variables were found to behave in an unexpected way, that is, reduced levels were correlated with increased FDI presence. Institutional variables were tested in their difference between home and host country mode and showed that the increased differences in terms of governance was associated with higher FDIs, denoting surprisingly that host countries' lower governance levels attract FDI from developed economies with high governance levels. This added up to FDIs' image as business entities seeking to exploit host countries poor governance.

Chapter 6 focused further on corruption issues and the results revealed an interesting relationship. Corruption, measured with a variety of different indices, was found to be highly significant and always positive for incoming FDIs, that is, it was found that higher levels of corruption were correlated to higher FDI levels in the host countries. The causality analysis that followed revealed that in the relation between corruption and FDI, FDIs was rather the cause of corruption, merely in terms of time sequencing. The overall results showed that FDI firms appeared to be organizations which not only tolerated corruption, but actually promoted it. These results were further verified by the presentation of a series of real life cases of MNEs being actively involved in corruption cases in several countries, transition ones included. The analysis included also an assessment of legislation (FCPA) and international conventions (OECD) against bribery and showed that despite their beneficial will, their results so far are still minimal

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### ***8.3 FDI determinants in the Transition Economies***

The third empirical stage of the research included panel-data analysis of FDI determinants. Chapter 7 focused more on location and transition reforms related FDI determinants and the results, in many aspects, confirmed the existing literature in the field.

Incoming FDI were found to be significantly correlated to economic growth, openness and high infrastructure levels of the host countries. Apart from these, the FDIs were found to be significantly and positively correlated with both large and small scale privatizations carried out in the studied economies, while also to other transition reforms indicators regarding competition policy, banking reforms, trade and foreign exchange policies. This confirmed further the approach that the transition reform overall was merely an FDI enhancing mechanism.

Oil and natural gas production, as was expected, was another strong FDI determinant. Government expenditure emerged as being significantly and negatively correlated with FDI, since it displayed aspects of state size and its intervention in the economy.

With regards to regional variables, the results have shown that the Balkans and Central European countries have been significantly backward, in terms of the incoming foreign investments, when compared to Ex Soviet countries.

### ***8.4 General Overview and Future Research***

MNEs and FDI cognitive field is huge and several of its aspects have been left out in this thesis. The research has addressed a series of issues and formed a view concerning FDIs in the regions of interest. However, this needs more detailed further research so as to enhance understanding of the phenomenon.

The analysis has shown that FDI firms in the transition countries are organizations that primarily focus on their own interests and their profit opportunities. Moreover, the evidence has shown that in terms of the existing institutions in the studied countries, the FDI presence hardly benefits the host countries involved at all. Some results showed

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that there are cases in which FDI presence has actually worsened the overall situation. FDI firms in the regions studied have emerged as entities with strong competitive advantages when compared to the local ones and these advantages have mainly been of a financial nature. The beneficial results in the host countries have not been found to exist to any large extent, in terms issues such as increased fixed investments or increased labour skills. These research results are in a way general and apply to all the FDIs which have been present in the transition countries of study. However, it would be of interest to focus on the specific sectors, in which FDIs are present, e.g. manufacturing and service sectors, to examine in more depth sector-specific FDI determinants.

In carrying out the analysis, a crucial problem that was consistently encountered was the lack of adequate data on a range of issues, especially those related to human capital. The turbulent conditions in the countries of the study were detrimental to collection of such data. However, as time passes, such data will be collected and future analysis could provide useful insights into the relationship between the FDIs and a series of notions, like: human capital and institutional issues, such as schooling.

This research was based mainly on data for FDIs which originated from developed countries and thus it would of interest to extend this to research the features and the determinants of foreign investments that have originated from developing countries. These results could then provide a basis for a comparison between the two types of countries, in terms of FDI determinants and their interaction with host country institutions.

Another interesting field could be the study of the impact of the home countries' policies on FDIs. Such a study could provide additional insight into the nature of the determinants and the incentives of multinational firms regarding their globalisation orientations. Moreover, research is needed that focuses on home countries to understand the determinants and conditions under which MNEs emerge in the first placed, subsequently leading FDI. Much of the literature contains studies of determinants in the host countries and such research into those of the home countries would provide valuable further insights in explaining FDI activities.

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## *Thesis Appendix: Publications Evidence*



Presentation of the Empirical findings of Chapter 4, regarding FDI features in the BEEPS surveys.

***ATHENS INSTITUTE FOR EDUCATION AND RESEARCH***

8 Valaoritou Street, Kolonaki, 10671 Athens, Greece. Tel.: + 30 210

36.34.210

Fax: + 30 210 3634209 Email: [atiner@atiner.gr](mailto:atiner@atiner.gr) URL: [www.atiner.gr](http://www.atiner.gr)

Athens, May 31st, 2010

*Paper Acceptance Certificate*

This is to certify that the paper entitled "*FDI Features in Transition Countries in the Business Environment and Enterprise Performance Surveys*" written by Sotirios K. Bellos, PhD Student, University of Bath, UK, will be included in one of our Book Publication published by Athens Institute for Education and Research, edited by our Academic Members. The expected publication year is 2011.

Details of the publication will be uploaded on our website [http://www.atiner.gr/docs/BOOK\\_PUBLICATIONS.htm](http://www.atiner.gr/docs/BOOK_PUBLICATIONS.htm).

*Greg T. Papanikos*



—  
Dr. Gregory T. Papanikos  
Director

Copy of the e-mail announcing the acceptance for publication of the empirical findings of Chapter 6.

----- Forwarded message from [econ508@york.ac.uk](mailto:econ508@york.ac.uk) -----  
 Date: Tue, 11 May 2010 12:47:52 -0400 (EDT)  
 From: econ508@york.ac.uk  
 Reply-To: econ508@york.ac.uk  
 Subject: Bulletin of Economic Research - Decision on Manuscript ID  
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 To: ecsts@bath.ac.uk, turansubasat@hotmail.com  
 11-May-2010

Dear Dr. Subasat:

It is a pleasure to accept your manuscript entitled "CORRUPTION AND FOREIGN DIRECT INVESTMENT: A PANEL GRAVITY MODEL APPROACH" in its current form for publication in the Bulletin of Economic Research. The comments of the reviewer(s) who reviewed your manuscript are included at the foot of this letter.

Thank you for your fine contribution. On behalf of the Editors of the Bulletin of Economic Research, we look forward to your continued contributions to the Journal.

Sincerely,  
 Prof. Gabriel Talmain  
 Editor-in-Charge, Bulletin of Economic Research [econ508@york.ac.uk](mailto:econ508@york.ac.uk)

Associate Editor Comments to Author:

Associate Editor  
 Comments to the Authors:  
 (There are no comments)

Referee(s)' Comments to Authors:

Referee: 1  
 Comments to the Authors  
 Congratulations on a fine contribution to the literature.

Referee: 2  
 Comments to the Authors  
 I can see that the authors have responded intelligently to every comment that I made in my previous review. I think the paper has been significantly improved as a result, although in practice my probings have revealed the robustness of their findings rather than any inherent weaknesses in the work. They have tended to react by adding footnotes, but on reflection i think this is appropriate because the additional work did not really alter the main arguments.

Overall, I think the paper as it stands makes an interesting contribution to the literature. I have no further comemnts to make, and would be happy to see the paper accepted for publication.

----- End forwarded message -----

Acceptance letter for presentation at the 5th Annual International Symposium on Economic Theory, Policy and Applications of the findings of Chapter 7.

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8 Valaoritou Street, Kolonaki, 10671 Athens, Greece. Tel.: + 30 210 36.34.210

Fax: + 30 210 3634209 Email: [atiner@atiner.gr](mailto:atiner@atiner.gr) URL: [www.atiner.gr](http://www.atiner.gr)

**Athens, January 29th, 2010**

**Sotirios Bellos**

University of Bath

United Kingdom

**Our Ref: ECO2010/1983**

**Dear Participant,**

I would like to inform you that the selection committee has decided to accept your submission entitled:

**FDI Determinants in Transition Countries. The Role and the Impact of Transition Speed**

for an oral presentation at the **5th Annual International Symposium on Economic Theory, Policy and Applications** to be held in Athens, Greece on **26-29 July 2010**. You will receive further instructions about presentations 1-2 weeks before the conference, i.e. venue details, program, time and the equipment available for your presentation.

We will also upload the information at the conference website: <http://www.atiner.gr/docs/Economics.htm>. Please confirm your participation by completing and sending the attached registration form **before March 1st, 2010** by fax, regular mail or email.

I look forward to meeting you in Athens.

Sincerely,



Gregory T. Papanikos  
Director